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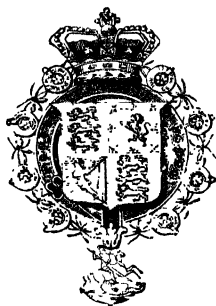
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The Royal School Series.

No. VI.

THE ROYAL READERS.



ILLUSTRATED

London:

T NELSON AND SONS, PATERNOSTER ROW.
EDINBURGH; AND NEW YORK.

1892.

P R E F A C E.

THIS volume completes the ordinary Series of THE ROYAL READERS. It differs from No. V., in embracing a wider range of subjects, and in making considerably greater demands on the intelligence and knowledge of the young scholar. At the same time, the lessons have been made as interesting as possible, in order to fulfil what has already been repeatedly pointed out as the aim of the Series—namely, “To cultivate *the love of reading* by presenting interesting subjects treated in an attractive style.”

It is worthy of notice that this volume is not a mere collection of literary fragments. Every subject taken up in it is treated with a degree of completeness which will at once satisfy the inquiring mind and stimulate its powers of thought. With this view it was found necessary to have a large number of the lessons specially prepared; so that a considerable portion of the book consists of original articles.

The following are the leading features in the plan of the volume:—

I. Very copious NOTES are appended to each lesson, explaining every point of difficulty that occurs in the course of it. These Notes make the book thoroughly *self-interpreting*—a matter of the greatest importance when it is remembered how rarely the scholars have within their reach the books of reference necessary to make every scientific and historical allusion intelligible. It is believed, also, that teachers will find it advantageous to have the requisite information in the compact form in which it is given in the Notes, not only for their own convenience, but also as a means of enabling them to advance more rapidly, as well as more surely, than if they had to communicate that additional information orally during school hours.

II. The ACCENTUATION and the MEANING of the most difficult words are given in a Vocabulary at the end of each lesson. For

convenience of reference, a point is prefixed in the reading lesson to every word explained in the Vocabulary. These lists of words are to be used for spelling lessons, as well as for exercises in pronunciation, and in the meaning of words. The WORD LESSONS include, besides these Vocabularies, the principal Greek Prefixes, and a general list of Suffixes, with exercises thereon.

III. Rules of PUNCTUATION, based on a few simple principles, are given in Part II. In connection with these, a set of DICTATION Exercises is introduced, specially selected to illustrate the Rules. These Rules, however, are intended to be applied systematically to all the Dictation and Composition exercises of the class. The special exercises in Dictation should be supplemented by sentences selected from the daily reading lesson.

IV. The QUESTIONS on each lesson are continued in the present book, not so much for the convenience of the teacher as for that of the scholar and his friends at home. They are an admirable means of enabling a scholar to test his own knowledge. But their chief value lies in their facilitating the work of parents or others at home in ascertaining whether the lessons have been thoroughly learned. The Questions will thus warrant the teacher in insisting on the most perfect preparation of each lesson.

V. The method in which the Questions may be used as a basis for NARRATIVE COMPOSITION is fully illustrated by an example appended to the first lesson in the book.

VI. Passages from standard authors adapted for RHETORICAL READING are given in both parts of the volume. Several poems, also, are printed in the form of prose. The chief value of this arrangement is, that it conduces to the reading of poetry by the sense, and not by lines. It also brings out very clearly the position of the rhetorical pauses, which are common to both poetry and prose.

VII. The USEFUL KNOWLEDGE LESSONS in Part I. treat of *The Barometer and Thermometer*, and *Great Inventions*. Those in Part II. include *The British Constitution*, and *The Animal Kingdom*, and a brief but exhaustive treatise on *Physical Geography*, adapted to the "Special Subjects" schedule of the Education Codes of England and Scotland. In a *Biographical Appendix* brief notices are given of the lives of the great men referred to in the lessons, and of the chief authors from whose writings selections have been made.

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NOTE.—The points prefixed to certain words in the Lessons indicate the words explained in the Vocabularies.

The figures refer to the Notes at the end of each Lesson.

SIXTH READING-BOOK.

PART I.

THE GREAT SIEGE OF GIBRALTAR.

1779-1782.

GIBRALTAR¹ fell into the hands of the English in 1704, during the War of the Spanish Succession²—the war in which Marlborough gained so much glory for the English arms. Admiral Sir George Rooke had been sent to the Mediterranean, to watch the French and Spanish fleets. For a long time he was unable to accomplish anything of importance; but, learning that Gibraltar was very poorly garrisoned, he suddenly attacked and captured it, and hoisted the English flag on its Signal Station.

That flag is the only one that has ever floated there since the 23rd of July 1704. Time after time have the Spaniards tried to recover this “key of the Mediterranean;” but every effort has been repulsed most gallantly, and often with tremendous loss to the enemy.

The last attempt they made was the most gigantic and determined of all; and its successful resistance by the English garrison forms one of the most heroic incidents in the annals of modern warfare. It occurred during the struggle which severed from England her North American colonies.³ France recognized the United States as an independent power in 1778, and a war with England was the consequence. In the following year Spain joined France, and Gibraltar was immediately blockaded.

The siege which followed lasted three years. Every appliance which experience could suggest, or skill could devise,

was brought into requisition. Never before had such tremendous armaments, by sea and by land, been brought against any fortress. Yet the garrison held out bravely; and twice their friends outside—once by Admiral Darby, and once by Rodney—succeeded in sending them reinforcements and supplies.

Early in 1781, there was a terrific bombardment of the place; but so effectual was the shelter afforded by the casemates,⁴ or bomb-proof vaults, that the garrison lost only seventy men. In November of the same year, General Elliot, who conducted the defence, headed a midnight sortie, which annihilated the entire line of the enemy's works. Their floating batteries were at the same time destroyed with red-hot balls. That one night cost the Spaniards two millions sterling!

But the final effort was made in 1782, when the Duke de Crillon, flushed with his success in capturing Minorca, took the command of the besiegers. He had under him upwards of 30,000 of the best troops of France and Spain, and his heavy guns amounted to the then unprecedented number of one hundred and seventy. The combined fleets numbered forty-seven sail of the line, with ten great floating batteries—the contrivance of a French engineer, and deemed invincible,—and frigates, gun-boats, mortar-boats and small craft without number. The besieged numbered only 7000 men with eighty guns.

The siege attracted the interest of the whole civilized world. Two French princes joined the besiegers' camp, to witness the fall of the place. "Is it taken?" was the first question asked each morning by the King of Spain. "Not yet; but it will be soon," said his courtiers: and still Elliot's guns thundered defiance from the Rock.

At length, on the morning of the 13th of September, the grand and decisive attack commenced. The ten battering-ships bore down in admirable order to their several stations. The Admiral, in a two-decker, moored about nine hundred yards off the King's Bastion.⁵ The other vessels took their places in a masterly manner, the most distant being eleven hundred or twelve hundred yards from the garrison. Under shelter of the walls, furnaces for heating shot had been lighted; and, from the instant the ships dropped into position, a continuous fire of red-hot balls was directed upon them by the garrison.

In little more than ten minutes, continues Drinkwater, the enemy were completely moored, and their cannonade then became tremendous. The showers of shot and shell which were



VIEW OF GIBRALTAR (See Note I, p. 15.)

directed from their land-batteries and battering-ships, on the one hand, and, on the other, the incessant fire from the various works of the garrison, exhibited a scene of which neither the pen nor the pencil can furnish a 'competent idea. It is sufficient to say that upwards of *four hundred pieces* of the heaviest artillery were playing at the same moment—a power of 'ordnance which up till that time had scarcely been employed in any siege since the invention of those wonderful engines of 'destruction.

After some hours' cannonade, the battering-ships were found to be no less formidable than they had been represented. Our heaviest shells often rebounded from their tops, whilst the thirty-two pound shot seemed 'incapable of making any visible impression upon their hulls. Frequently we flattered ourselves that they were on fire; but no sooner did any smoke appear, than, with the most persevering 'intrepidity, men were observed applying water from their engines within, to those places whence the smoke issued.

Though vexatiously annoyed from the isthmus,⁶ our artillery directed their sole attention to the battering-ships, the furious and spirited opposition of which served to excite our people to more animated exertions. A fire more tremendous, if possible, than ever, was therefore directed upon them from the garrison. 'Incessant showers of hot balls, carcasses,⁷ and shells of every species, flew from all quarters; yet, for some hours, the attack and defence were so equally maintained as scarcely to indicate any appearance of superiority on either side. The wonderful construction of the ships seemed to bid defiance to the powers of the heaviest 'ordnance.

In the afternoon, however, the face of things began to change considerably. The smoke which had been observed to issue from the upper part of the flag-ship appeared to prevail, notwithstanding the constant application of water; and the Admiral's second was perceived to be in the same condition.

As night came on, the flames fairly gained the ascendant. The confusion which reigned on board of these vessels soon communicated itself to the whole line. The fire of the battering-ships gradually 'slackened: that of the garrison, on the contrary, seemed to become more animated and tremendous.

It was kept up during the entire night. At one in the morning, two of the ships were entirely a prey to the flames. It was not long before the others also caught fire, either from the operation of the red-hot balls, or, as the Spaniards afterwards alleged, because they set them on fire themselves, when they had

lost all hope of saving them. It was then that trouble and despair broke out in all their violence. Every moment the Spaniards made signals of distress, and fired off rockets to implore assistance.

All their boats were immediately sent off, and surrounded the floating gun-ships, in order to save their crews—an operation executed with extreme intrepidity, in spite of perils of every sort. Not only was it necessary for the men to brave the artillery of the besieged: they had also to expose themselves to almost inevitable burning in approaching the flaming vessels. Never, perhaps, did a spectacle more horrible—more deplorable—present itself to the eyes of men. The profound darkness that covered the earth and the sea intensified, by contrast, the lurid flames; and the shrieks of the victims were distinctly heard by the garrison, in the intervals of their cannonade.

A fresh incident arose to interrupt the succour carried to them, and to redouble the terror and confusion. Captain Curtis, a sailor as daring as he was skilful, suddenly advanced with his gun-boats, which had been constructed to confront those of the Spaniards, and each of which carried in front an eighteen or twenty-four pounder. Their fire at water-level rendered them exceedingly formidable; and they were disposed by Captain Curtis so as to take the line of floating batteries in flank.

From that moment the position of the Spaniards became terribly critical. The boats no longer dared to approach them, but were constrained to abandon those enormous machines, so lately the objects of their admiration, to the flames, and their companions in arms to the mercy of an enraged enemy. Several of them were seen to founder. Others only escaped by forced rowing. A few sought shelter by the land during the night; but, on the appearance of daylight, they were easily captured by the English.

Then was witnessed, in all its horrors, a scene, the most harrowing features of which had hitherto remained concealed. In the midst of the flames appeared unhappy wretches, who, with loud shrieks, implored compassion, or precipitated themselves into the waves. Some, on the point of drowning, clung with weakened grasp to the sides of the burning vessels, or floated at hazard on fragments which they chanced to encounter, and, in the agony of desperation, convulsively implored the compassion of their victors.

Touched by this deplorable spectacle, the English listened to humanity alone, and ceased their fire, to occupy themselves

solely with the rescue of their enemies ; a proceeding the more generous on their part, as they thereby exposed themselves to the most imminent hazard. Captain Curtis, in particular, covered himself with glory, by prodigally risking his own life to save those of his fellow-creatures. Some of his own men were wounded in this honourable enterprise ; others were killed : and



SUBTERRANEAN GALLERY, EXCAVATED OUT OF THE SOLID ROCK.
(See Note 4, p. 16.)

he himself narrowly escaped from partaking the fate of a ship which blew up at the moment when he was about to board her. More than four hundred of the enemy's troops were rescued by this intrepid sailor from certain death !

The greater number of the famous battering-ships were either blown up or burnt. The Spanish Admiral quitted his flag-ship

a little before midnight, as did also D'Arçon, the French engineer, that on board of which he had embarked to witness the triumph of his 'contrivances.

Meanwhile, the most intense 'anxiety as to the fate of Gibraltar prevailed in England. Admiral Howe had sailed from Portsmouth with a convoy containing fresh troops and provisions, and a fleet of thirty-four sail of the line. Relieved by the news of Elliot's 'brilliant victory, which he received off the coast of Portugal, he steered direct for the Straits, and succeeded in bringing the whole of his transports to their 'destination, even in presence of the enemy's fleets. Thus Gibraltar was saved, and the 'continuance of the blockade till the peace (Jan. 20, 1783), was little more than a form.

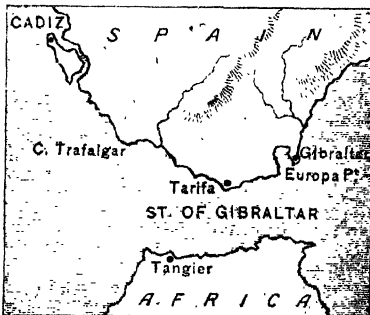
accomplish, perform'.
annihilated, destroyed'.
anxiety, solicitude
appli'ance, contriv'ance.
armaments, forces
blockad'ed, invest'ed.
brilliant, splendid.
cannonade', sustained' fire.
capturing, seizing
competing, ad'equate.
continuance, prolouga'-
tion.
contriv'ances, inven'tions
convul'sively, spasmod'-
ically.
decisive, final.

defiance, contempt' for an
enemy
destina'tion, ha'ven
destruc'tion, devasta'tion.
enterprise, exploit'.
executed, performed'.
formidable, dan'gerous.
gigantic, stupen'dous.
imminent, threat'ening.
import'ance, mo'ment
incapable, un'able.
incessant, cease'less.
inevitable, unavoi'dable.
intensified, made greater.
interrupt, hin'der.
intrepid'ity, dar'ing.

invinc'ible, invul'nerable.
ord'nance, can'non.
precipitated, cast.
prod'igally, gen'erosly.
recognized, acknowl'edged.
reinforce'ments, fresh
troops.
repulsed', driven back.
requisi'tion, opera'tion.
resist'ance, defeat'.
slackened, declined'.
sortie, sally.
tremen'dous, overwhelm'-
ing.
unprecedented, unpar'al-
leled.

¹ **Gibraltar.**—Gibraltar is not so much a rocky fortress as a fortified mountain, with a town on one of its spurs. It occupies a remarkable tongue of land in the south of Spain, with which it is connected by a narrow neck of flat and neutral ground. The length of the peninsula from north to south is under three miles; its breadth nowhere exceeds three quarters of a mile. The north front of the rock rises perpendicularly from the neutral ground, and stretches across from sea to sea, with the exception of a narrow passage at the western side.

The mountain is continued in one unbroken ridge down the eastern side of the promontory. On the Mediterranean shore its rocky sides are steep and inaccessible, rising in some parts to 1400 feet above the sea-level. On its western side, the mountain shelves down by a series of terraces to the Bay of Gibraltar, a wide and deep inlet at the eastern extremity of the Straits. The town of Gibraltar is situated at the north-western corner



of the peninsula, and forms the focus of the extensive system of defensive works, which cover the whole western side of the promontory from shore to summit.

The view of Gibraltar on page 11 is taken from a point on the northern shore of the bay. The spectator is looking towards the south-east. The precipitous rock on the left is the northern peak of the mountain, overlooking the neutral ground. Its summit (Rock Mortar) is 1350 feet in height. The most distant peak is Sugar-loaf Point (1440 feet); the intermediate one is the Signal Station (1276 feet). The King's Bastion, which is in the middle of the town, forms the extreme right of the picture.

² **The War of the Spanish Succession.**—The object of this war was to prevent the union of the crowns of France and Spain. England therefore supported the claim of Charles, the Archduke of Austria, in opposition to Philip of Anjou.

³ **North American Colonies.** (See OUTLINES OF HISTORY, Nelsons' School Series.)

⁴ **Case'mates.**—The defences of Gibraltar were greatly strengthened soon after this siege—between 1780 and 1789. Where the slope was too steep to admit of external forts, subterranean galleries were excavated in the solid rock. These galleries, which are chiefly on the north and north-west, are several thousand yards in length, and are pierced at intervals of ten paces by large embrasures, through which huge guns point their black muzzles. At the time of the siege the Rock mounted only eighty guns. It is said that now upwards of a thousand of the most powerful guns are placed in battery.

⁵ **The King's Bastion.**—The central point in the defences of the town, on the sea level. There General Elliot stood during the hottest of the enemy's fire.

⁶ **From the isthmus.**—The Spaniards had a formidable line of works on the north side of the isthmus, or neutral ground, which connects Gibraltar with Spain.

⁷ **Car'casses,** oval bomb-shells filled with combustibles.

QUESTIONS.—When and how did Gibraltar fall into the hands of the English? When did the Spaniards make the most determined effort to recover it? How long did the siege last? How often during that time was the garrison succoured? What was done in 1781? When was the final effort made? Who took the command of the besiegers? How many men had he? To what did the combined fleets amount? What was the strength of the garrison in men and in guns? What is the date of the decisive attack? Upon what had the besiegers placed most reliance? What proved the great strength of these ships? How were they at length destroyed? What movement compelled the Spaniards to abandon them? What humane service did Curtis afterwards render? Who brought fresh troops and provisions from England to the garrison? When did the blockade finally terminate?

NARRATIVE COMPOSITION.

THE writing of simple narrative ought to be practised in every school. One of the latest Government programmes specifies, as an exercise for the highest class in elementary schools, "Writing from memory the substance of a short story or narrative read out twice" to the scholars. The questions at the end of each lesson in this book, as in the other books of the Series, form a most convenient means of practising narrative composition, and of acquiring skill and readiness in the exercise. In preparing the questions, this use of them has been kept steadily in view; and it will be found that the answers to each set of questions form a good consecutive abstract of the lesson. This applies not only to the ordinary reading lessons, but also to those on Great Inventions and on Physical Geography.

The first difficulty which young people meet with in attempting composition is in knowing "how to begin;" the second is in knowing "what to say next." Now the advantages of the question-method are, that it shows the scholar both how to begin, and how to proceed; and that it at the same time requires the construction of every sentence to be the scholar's own.

The mode of procedure is extremely simple. The exercise consists of two steps:—

1. The answer to every question is written down in the form of a complete sentence.
2. Additional circumstances are introduced when necessary, to make the narrative consecutive, and the composition smooth.

To illustrate the process, we here show how the questions on the preceding lesson may be made the basis of a simple narrative.

FIRST STEP—SIMPLE ANSWERS TO THE QUESTIONS.

1. Gibraltar fell into the hands of the English in 1704, during the War of the Spanish Succession. Sir George Rooke, learning that it was poorly garrisoned, suddenly attacked and captured it.
2. The Spaniards made their last and most determined effort to recover it in 1779, during the American War of Independence.
3. The siege lasted three years.
4. The garrison was twice succoured—once by Darby, once by Rodney.
5. Early in 1781, there was a terrific bombardment by the besiegers. Towards the end of that year the garrison made a midnight sortie, and destroyed the enemy's works.
6. The final effort to take the place was made in 1782.
7. The Duke de Crillon took the command of the besiegers.
8. He had under him 30,000 of the best troops of France and Spain.
9. The combined fleets numbered 47 sail of the line, with 10 great floating batteries.
10. The besieged numbered only 7000 men, with 80 guns.
11. The decisive attack commenced on the morning of the 13th of September.
12. The besiegers had placed most reliance on their 10 battering-ships.
13. The great strength of these ships was proved by the fact that the heaviest shells often rebounded from their tops.
14. They were at length destroyed by red-hot balls, which set them on fire.
15. The advance of Captain Curtis with his gun-boats compelled the Spaniards to abandon theirs.
16. Curtis and his men endeavoured to rescue their enemies from drowning—Curtis risking his own life to save those of his fellow-creatures.
17. Admiral Howe brought fresh troops and provisions from England to the garrison.
18. The blockade did not finally terminate till the peace (January 20, 1783); but after the failure of the bombardment, it was little more than a form.

SECOND STEP—COMPLETED NARRATIVE.

[The simple answers are here repeated in Roman type, and the additions in *Italics*.]

Gibraltar fell into the hands of the English in 1704, during the War of the Spanish Succession. Sir George Rooke, while watching the French and Spanish fleets in the Mediterranean, learned that it was poorly garrisoned, and suddenly attacked and captured it. After many vain attempts to retake it, the

Spaniards made their last and most determined effort to recover it in 1779, during the American War of Independence.

The siege lasted three years, *in the course of which* the garrison was twice succoured—once by Darby, once by Rodney.

Early in 1781 there was a terrific bombardment by the besiegers; *but it did little damage, and produced no result.* Towards the end of that year the garrison made a midnight sortie, and completely destroyed the enemy's works. *At the same time their floating batteries were set on fire by red-hot balls. That one night cost the Spaniards two millions sterling!*

The final effort to take the place was made in 1782, when the Duke de Crillon, who had lately distinguished himself by capturing Minorca, took the command of the besiegers. He had under him 30,000 of the best troops of France and Spain. The combined fleets numbered 47 sail of the line, with 10 great floating batteries. The besieged numbered only 7000 men, with 80 guns.

The decisive attack commenced on the morning of the 13th of September. The ten battering-ships, on which the besiegers placed most reliance, bore down in admirable order to their several stations. The great strength of these ships was proved by the fact that the heaviest shells often rebounded from their tops, and thirty-two pound shot made no visible impression on their hulls. At length, however, the red-hot balls from the garrison set them on fire, and the whole of the enemy's line was thrown into confusion. The advance of Captain Curtis with his gun-boats compelled the Spaniards to abandon theirs. *The English then showed themselves to be as humane as they were courageous.* Curtis and his men endeavoured to rescue their enemies from drowning; Curtis, on more than one occasion, risking his own life to save those of his fellow-creatures.

The Spaniards having been thus utterly defeated, Admiral Howe brought fresh troops and provisions from England to the garrison. The blockade did not finally terminate till the peace (January 20, 1783); but after the failure of the bombardment it was little more than a form.

BATTLE OF CORUÑA AND DEATH OF MOORE.

January 17, 1809.

As the troops approached Coruña,¹ the General's looks were directed towards the harbour; but an open expanse of water painfully convinced him that to Fortune, at least, he was no way beholden: contrary winds still detained the fleet at Vigo,² and the last consuming exertion made by the army was rendered fruitless! The men were put into quarters, and their leader awaited the progress of events.

Three divisions occupied the town and suburbs of Coruña, and the reserve was posted near the neighbouring village of El Burgo. For twelve days these hardy soldiers had covered the

retreat; during which time they had 'traversed eighty miles of road in two marches, passed several nights under arms in the snow of the mountains, and been seven times engaged with the enemy. They now assembled at the outposts, having fewer men missing from the ranks than any other division in the army.

The town of Coruña, although 'sufficiently strong to oblige an enemy to break ground before it, was weakly fortified, and to the southward was commanded by some heights close to the walls. Sir John Moore therefore caused the land front to be strengthened, and occupied the 'citadel, but disarmed the sea face of the works.

The late arrival of the transports, the increasing force of the enemy, and the 'disadvantageous nature of the ground, had greatly 'augmented the difficulty and danger of the embarkation; and several general officers now proposed to the commander-in-chief that he should negotiate for leave to retire to his ships upon terms. Moore's high spirit and clear judgment revolted at the idea, and he rejected the degrading advice without hesitation.

All the 'encumbrances of the army were shipped in the night of the 15th and morning of the 16th, and everything was prepared to withdraw the fighting men as soon as the darkness would permit them to move without being perceived. The 'precautions taken would, without doubt, have insured the success of that difficult operation; but a more glorious event was destined to give a 'melancholy but graceful termination to the campaign. About two o'clock in the afternoon a general movement along the French line gave notice of an approaching battle.....

Sir John Moore, while earnestly watching the result of the fight, was struck on the left breast by a cannon shot. The shock threw him from his horse with 'violence; but he rose again in a sitting posture, his countenance unchanged, and his steadfast eye still fixed upon the regiments engaged in his front, no sigh betraying a sensation of pain. In a few moments, when he was 'satisfied that the troops were gaining ground, his countenance brightened, and he suffered himself to be taken to the rear.

Then was seen the dreadful nature of his hurt. The shoulder was shattered to pieces; the arm was hanging by a piece of skin; the ribs over the heart were broken and bared of flesh; and the muscles of the breast were torn into long strips, which were 'interlaced by their recoil from the dragging of the shot. As the soldiers placed him in a blanket, his sword got entangled,

and the hilt entered the wound. Captain Hardinge,³ a staff officer who was near, attempted to take it off; but the dying man stopped him, saying, "*It is as well as it is. I had rather it should go out of the field with me;*"—and in that manner, so becoming to a soldier, Moore was borne from the fight.

Sir John Hope, upon whom the command of the army now devolved, resolved to pursue the original plan of embarking during the night. This operation was effected without delay. The arrangements were so complete that neither confusion nor difficulty occurred. The piquets, kindling a number of fires, covered the retreat of the column; and being themselves withdrawn at daybreak, were embarked under the protection of General Hill's⁴ brigade, which was posted near the ramparts of the town. This done, Hill's brigade embarked from the citadel; while General Beresford,⁵ with a rear guard, kept possession of that work until the 18th, when, the wounded being all put on board, his troops likewise embarked. The inhabitants faithfully maintained the town against the French, and the fleet sailed for England.

From the spot where he fell, Sir John Moore had been carried to the town by a party of soldiers. His blood flowed fast, and the torture of his wound was great; yet such was the unshaken firmness of his mind, that those about him, judging from the resolution of his countenance that his hurt was not mortal, expressed a hope of his recovery. Hearing this, he looked steadfastly at the injury for a moment, and then said, "*No; I feel that to be impossible.*" Several times he caused his attendants to stop and turn him round, that he might behold the field of battle; and when the firing indicated the advance of the British, he discovered his satisfaction, and permitted the bearers to proceed.

Being brought to his lodging, the surgeons examined his wound; but there was no hope. The pain increased, and he spoke with great difficulty. At intervals he asked if the French were beaten; and addressing his old friend, Colonel Anderson, he said, "*You know that I always wished to die this way.*" Again he asked if the enemy were defeated; and, being told that they were, observed, "*It is a great satisfaction to me to know that we have beaten the French.*" His countenance continued firm and his thoughts clear. Once only, when he spoke of his mother, he became agitated; but he often inquired after the safety of his friends and the officers of his staff; and he did not, even in that moment, forget to recommend those whose merit had given them claims to promotion.

His strength failed fast, and life was nearly extinct, when, with an almost unsubdued spirit, he exclaimed, "*I hope the people of England will be satisfied! I hope my country will do me justice!*" A few minutes afterwards he died; and his corpse, wrapped in a military cloak, was interred by the officers of his staff in the citadel of Coruña. The guns of the enemy paid his funeral honours; and Soult,^(b) with a noble feeling of respect for his valour, raised a monument to his memory.

Thus ended the career of Sir John Moore, a man whose uncommon capacity was sustained by the purest virtue, and governed by a disinterested patriotism, more in keeping with the primitive than with the luxurious age of a great nation. He maintained the right with a vehemence bordering upon fierceness; and every important transaction in which he was engaged increased his reputation for talent, and confirmed his character as a stern enemy to vice, a steadfast friend to merit—a just and faithful servant of his country.

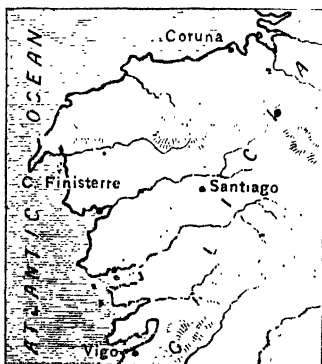
SIR W. NAPIER.^(b)

agitated, moved.
approached, neared
attempted, endeavoured.
augmented, increased.
capacity, ability.
citadel, fortress.
consuming, exhausting.
convinced, satisfied.
defeated, beaten.
devolved, fell.

disadvantageous, unfavourable
discovered, exhibited.
disinterested, unselfish.
embarking, going aboard
encumbrances, baggage
interlaced, entangled.
interred, buried
melancholy, sad
precautions, measures.

promotion, advancement.
protection, cover.
reputation, fame.
resolution, firmness
resolved, determined.
steadfast, firm.
sufficiently, adequately
transaction, business.
traversed, crossed.
violence, force.

¹ Coruña, a sea-port of Galicia, in the



north-west of Spain, with a fine harbour

and bay. The Battle of Coruña was fought on January 17th, 1809, to cover and secure the embarkation of the British troops. Sir John Moore, the commander-in-chief in Spain, had learned, when in the heart of Leon, that Napoleon was master of Madrid. There was no course open to him but to retreat towards the shore of Galicia. This retreat was effected with consummate skill, in the face of the greatest obstacles—an inclement season, a poor country, and with the enemy constantly pressing on the rear.

² Vigo, a bay and sea-port in the south of Galicia, by sea fully 120 miles distant from Coruña.

³ Captain Hardinge, afterwards Sir Henry Hardinge, who, as Governor-General of India, annexed the Punjab to the British dominions, and was made Viscount Hardinge of Lahore. He died in 1856.

⁴ General Hill, afterwards Sir Rowland, and Viscount Hill, was commander-in-chief from 1828 till his death in 1842.

' General Ber'esford, afterwards Baron, self at Vitoria. He carried the heights of and Viscount Beresford. He defeated Soult Toulouse in 1814. He was governor of at Albuera, and greatly distinguished him- Woolwich Academy till his death in 1854.

QUESTIONS.—When was the Battle of Coruña fought? Who was the British commander-in-chief? Why was it necessary to fight the battle? What proposal of some of his officers did he reject? How was he wounded? What was the result of the engagement? When did the embarkation take place? In whom did Moore show much interest in his later moments? What were his last words? What was his character?

THE BURIAL OF SIR JOHN MOORE.

Not a drum was heard, not a funeral note,
As his corpse to the ramparts we hurried;
Not a soldier discharged his farewell shot
O'er the grave where our hero we buried.

We buried him darkly at dead of night,
The sods with our bayonets turning;
By the struggling moonbeam's misty light,
And the lantern dimly burning.

No useless coffin enclosed his breast,
Not in sheet nor in shroud we wound him;
But he lay like a warrior taking his rest
With his martial cloak around him.

Few and short were the prayers we said,
And we spoke not a word of sorrow
But we steadfastly gazed on the face that was dead,
And we bitterly thought of the morrow.

We thought, as we hollowed his narrow bed,
And smoothed down his lonely pillow,
That the foe and the stranger would tread o'er his head,
And we far away on the billow!

Lightly they'll talk of the spirit that's gone,
And o'er his cold ashes upbraid him;
But little he'll reck if they let him sleep on
In the grave where a Briton has laid him!

But half of our heavy task was done
When the clock struck the hour for retiring;
And we heard the distant and random gun
That the foe was sullenly firing.

Slowly and sadly we laid him down,
From the field of his fame fresh and gory;
We carved not a line, and we raised not a stone—
But we left him alone with his glory.

CHARLES WOLFE (1791-1823).

THE BED OF THE ATLANTIC.

(To be read before a Map.)

IF the waters of the Atlantic could be drawn off, so as to expose to view the great trough which separates the Old World from the New, a scene would present itself of the grandest and most imposing character. The very ribs of the solid Earth, and the foundations of the hills, destitute of the 'garniture of vegetation, would be brought to light. We should have unrolled before us a vast 'panorama of mountains and valleys, of table-lands and plains, of deep gorges and lofty peaks, rivalling in grandeur and in variety the continents of the upper world.

Comparatively little is yet known of the bed of the South Atlantic; but the basin of the North Atlantic has been extensively 'surveyed by the English and American Navies. Let us suppose this vast basin to be emptied of its waters; and, with the aid of the charts which have been constructed, let us in imagination traverse these deep places of the Earth and learn what we can of their secrets. Remembering that what we have to explore is really a vast system of table-lands, mountains, and valleys, let us first endeavour to grasp its broad outstanding features.

In the northern part of the basin there stretches across the Atlantic from Newfoundland to Ireland a great 'submarine plain, known in recent years as Telegraph Plateau.¹ About one hundred miles from the coast of Ireland this plateau, rising as a broad terrace, reaches to within a hundred fathoms of the surface of the ocean. On this terrace stand the British Islands, the climate of which is materially affected by their being thus removed from the influence of the colder waters in the depths of the Atlantic. About midway between these islands and Iceland, it has been found that ~~icy~~ cold water is constantly flowing towards the Equator, at a considerable depth beneath the surface, to supply the place of the warm surface-water moving northward from the Equator. At the depth of three-quarters of a mile, the 'temperature of this great polar current is two degrees below the freezing point. The British terrace raises these isles out of this cold stream, and thus none but the warmer upper waters flow around the British coasts.

From the middle of Telegraph Plateau an immense submarine continent, nearly as extensive as South America, stretches first southward and then towards the west, occupying the whole central area of the North Atlantic basin.

On either side of this central continent there is a broad and deep valley. These valleys converge as they go southward, and meet in mid-ocean between the Cape Verd and the West India Islands. Of these valleys, the western is much deeper than the eastern. Its greatest depth is found midway between the Bermudas and the Azores, at a point 1500 miles east of New York. There the sounding-line has been carried deeper than anywhere else in the ocean. It is the deepest part of the Atlantic.

Could we transport ourselves to that point, we should stand on what is perhaps the very lowest part of the Earth's crust. We should be at least five miles below the ordinary level of the sea, surrounded on all sides by great mountains. On the south-west the Bermudas would be seen as lofty mountain-peaks, rising half as high again as the summits of the Alps or the Andes. On the north-east we should see the Azores as the culminating points of the central continent. Pico, their highest point, would appear, from the general level, as a mountain 400 feet higher than Mont Blanc;² but from our imaginary stand-point in the lowest depths of the Atlantic, it would be six and a half miles in height—a mile higher than the highest peak of the Himalaya, the loftiest mountain on the globe.

Each of these great ocean valleys rises in a series of terraces to the sides of the Old and New Worlds respectively. The course of the western valley, which lies off the United States and the West India Islands, has been traced as far south as to the Equator. The terraces of the eastern valley rise from the depths of the ocean to the western coasts of Europe and Africa. Off the coast of Africa they rise into a series of lofty and rugged summits, which we call Madeira, the Cape Verd, and the Canary Isles; and the whole system culminates in the Peak of Teneriffe in the last-named group. That peak is two miles and one-third above the level of the sea. The lowest point yet sounded in the bed of the Atlantic is five miles below that level. The whole mountain system of the Atlantic basin, therefore, extends to upwards of seven miles in vertical height, or higher than any of the mountains of the globe are above the level of the sea.

By bringing up specimens from the depth of the Atlantic, and studying them under the microscope, it has been ascertained that the bed of the ocean is covered with very minute shells, which lie on the bottom as lightly as gossamer. The microscope has not detected a single particle of sand or gravel among these little mites of shells. This fact proves that quiet reigns in the

depths of the sea: that as in the air ocean there is a region of 'perpetual calm, "above the clouds;" so in the ocean of waters there is a region where perpetual calm prevails, beneath the troubled waves. There is not motion enough to abrade these very delicate 'organisms, nor current enough to sweep them about, or to mix with them a grain of the finest sand.

It may be that the myriads of animalcules³ which make the sea glow with life are secreting from it solid matter which is 'destined to fill up the 'cavities below. They furnish the atoms of which mountains are formed and plains are spread out. Our marl-beds, the clay in our river-bottoms, large portions of many of the great basins of the Earth, even flinty rocks, are composed of the remains of just such minute animals as those which have been fished up from a depth of three miles below the sea-level. These creatures, therefore, when living, may have been preparing the 'ingredients for the fruitful soil of a land that some earthquake or upheaval, in ages far away in the future, may yet raise up from the bottom of the sea for the use of man.

ascertained', found.
cavities, hollow places
converge, draw near to
each other.
culminating, crown'ing.
des'tined, appoint'ed.
detect'ed, discover'ed.

gar'niture, embel'lishment.
gos'samer, cob'web.
ingre'dients, el'ements
or'ganisms, struc'tures.
panorä'ma, comprehensive
view.
perpet'ual, con'stant.

sep'arates, keeps apart
submarine', under the sea
sum'mits, peaks.
surveyed', exam'ined.
tem'perature, degree of
heat.
transport', convey'.

¹ **Telegraph Plateau.**—So called because on it were laid the submarine telegraph cables between Ireland and America in 1865 and 1866. (See GREAT INVENTIONS, p. 192.)

² **Higher than Mont Blanc.**—This is the illustration used by Professor Wyville Thompson, in his work entitled *The Depths of the Sea*. But Arnold Guyot says that the level of the Atlantic bed appears to be more uniform than has hitherto been supposed, "extensive plains and huge

table-lands being its predominating features."

³ **Animal'cules**, very small animals. It was at one time supposed that there was no animal life at the bottom of the deep sea, and that those little animals whose remains are found there lived only near the surface of the ocean. Recent investigations have shown this to be a mistake. Life has been found at a depth of three miles, and is now believed to exist even in the deepest parts.

QUESTIONS.—Of what does the bed of the ocean consist? What part of the Atlantic has been surveyed? By whom? What plain stretches across the northern part of the basin? On what do the British Isles stand? What effect has this on their climate? Why? What extends southward from the middle of Telegraph Plateau? What is there on either side of the central continent? Where is the deepest part of the Atlantic? If we could stand there, how far should we be below the sea-level? By what should we be surrounded? What would the Bermudas appear to be? And the Azores? Where does the whole Atlantic mountain system culminate? What is its extent in vertical height? With what is the bed of the ocean covered? What shows that quiet reigns in the depths of the sea? Of what are the animalcules found in the bed of the ocean the elements?

BINGEN ON THE RHINE.

A SOLDIER of the Legion lay dying in Algiers;¹
 There was lack of woman's nursing, there was dearth of woman's
 tears;

But a 'comrade stood beside him, while his life-blood ebbed away,
 And bent, with pitying glances, to hear what he might say.
 The dying soldier 'faltered, as he took that comrade's hand,
 And he said: "I never more shall see my own, my native land:
 Take a message and a token to some distant friends of mine;
 For I was born at Bingen²—at Bingen on the Rhine.

"Tell my brothers and companions, when they meet and crowd around,
 To hear my 'mournful story, in the pleasant vineyard ground,
 That we fought the battle bravely; and when the day was done,
 Full many a corse lay ghastly pale beneath the setting sun.
 And amidst the dead and dying were some grown old in wars—
 The death-wound on their gallant breasts, the last of many scars;
 But some were young, and suddenly beheld life's morn 'decline;
 And one had come from Bingen—fair Bingen on the Rhine.

"Tell my mother that her other sons shall 'comfort her old age,
 And I was aye a 'truant bird, that thought his home a cage;
 For my father was a soldier, and, even as a child,
 My heart leaped forth to hear him tell of struggles fierce and wild;
 And when he died, and left us to divide his 'scanty hoard,
 I let them take whate'er they would, but kept my father's sword;
 And with boyish love I hung it where the bright light used to shine,
 On the cottage-wall at Bingen—calm Bingen on the Rhine!

"Tell my sister not to weep for me, and sob with drooping head,
 When the troops are marching home again, with glad and gallant
 tread;

But to look upon them proudly, with a calm and 'steadfast eye,
 For her brother was a soldier too, and not afraid to die.
 And if a comrade seek her love, then ask her in my name
 To listen to him kindly, without regret or shame;
 And to hang the old sword in its place (my father's sword and mine),
 For the honour of old Bingen—dear Bingen on the Rhine!

"There's *another*—not a sister: in the happy days gone by,
 You'd have known her by the 'merriment that sparkled in her eye;
 Too innocent for 'coquetry—too fond for idle scorning!—
 O friend, I fear the lightest heart makes sometimes heaviest
 mourning!

Tell her the last night of my life (for ere this moon be risen
 My body will be out of pain—my soul be out of prison)
 I dreamed I stood with *her*, and saw the yellow sunlight shine
 On the vine-clad hills of Bingen—fair Bingen on the Rhine.

"I saw the blue Rhine sweep along ; I heard, or seemed to hear,
 The German songs we used to sing in chorus sweet and clear ;
 And down the pleasant river, and up the slanting hill,
 That echoing chorus sounded, through the evening calm and still ;
 And her glad blue eyes were on me, as we passed with friendly talk
 Down many a path beloved of yore, and well-remembered walk ;
 And her little hand lay lightly, 'confidingly in mine :—
 But we'll meet no more at Bingen—loved Bingen on the Rhine !"

His voice grew faint and hoarser ; his grasp was childish weak ;
 His eyes put on a dying look ; he sighed, and ceased to speak :
 His comrade bent to lift him, but the spark of life had fled ;
 The soldier of the Legion in a 'foreign land—was dead !
 And the soft moon rose up slowly, and calmly she looked down
 On the red sand of the battle-field, with bloody corpses strown ;
 Yea, calmly on that dreadful scene her pale light seemed to shine,
 As it shone on distant Bingen—fair Bingen on the Rhine !

CAROLINE NORTON. ^(b)

com'fort, soothe.

com'rade, companion.

confid'ingly, trustfully.

co'quetry, flirtation.

declin'e, fall away.

fal'tered, trem'bled.

for'eign, distant.

mer'itement, hap'piness.

mourn'ful, sad.

scant'y, meagre.

stead'fast, unwa'vering.

tru'ant, wan'dering.

¹ Algiers, on the northern coast of Africa.

² Bingen, a town in Hesse-Darmstadt (Germany). But the spirit of the poem is independent of place or time. It gives ex-

pression, in a very touching way, to the dying thoughts of a soldier stricken down in a foreign land, far away from friends and home.

THE CLOUD.

I BRING fresh showers for the 'thirsting flowers,
 From the seas and the streams ;
 I bear light shade for the leaves when laid
 In their noonday dreams.
 From my wings are shaken the dews that waken
 The sweet buds¹ every one,
 When rocked to rest on their Mother's breast,
 As she dances about the Sun.
 I wield the flail of the 'lashing hail,
 And whiten the green plains under ;
 And then again I 'dissolve it in rain,
 And laugh as I pass in thunder.

I sift the snow on the mountains below,
 And their great pines groan aghast ;
 And all the night 'tis my pillow white,
 While I sleep in the arms of the blast.

Sublime on the towers of my skiey bowers
 Lightning my pilot sits;
 In a cavern under is fettered the Thunder—
 It struggles and howls at fits:
 Over earth and ocean, with gentle motion,
 This pilot is 'guiding me,
 Lured by the love of the Genii² that move
 In the depths of the purple sea;
 Over the rills, and the crags, and the hills,
 Over the lakes and the plains,
 Wherever he dream, under mountain or stream,
 The Spirit he loves remains;
 And I all the while bask in heaven's blue smile,
 Whilst he is dissolving in rains.

The sanguine³ Sunrise, with his 'meteor eyes,
 And his burning plumes outspread,
 Leaps on the back of my sailing rack,⁴
 When the morning-star shines dead,—
 As on the jag of a mountain crag,
 Which an 'earthquake rocks and swings,
 An eagle alit⁵ one moment may sit
 In the light of its golden wings.
 And when Sunset may breathe, from the lit sea beneath,
 Its 'ardours of rest and of love,
 And the crimson pall of eve may fall
 From the depth of heaven above,—
 With wings folded I rest, on mine airy nest,
 As still as a brooding dove.

That orb'd maiden with white fire laden,
 Whom 'mortals call the Moon,
 Glides 'glimmering o'er my fleece-like floor,
 By the midnight breezes strewn;
 And wherever the beat of her unseen feet,
 Which only the angels hear,
 May have broken the woof⁶ of my tent's thin roof,
 The stars peep behind her and peer;
 And I laugh to see them whirl and flee,
 Like a swarm of golden bees,
 When I widen the rent in my wind-built tent,⁷—
 Till the calm rivers, lakes, and seas,
 Like strips of the sky fallen through me on high,
 Are each paved with the moon and these.

I bind the Sun's throne with a burning zone,
 And the Moon's with a girdle of pearl;
 The 'volcanoes are dim, and the stars reel and swim,
 When the 'Whirlwinds my banner 'unfurl.

From cape to cape, with a bridge-like shape,
 Over a torrent sea,
 Sunbeam-proof, I hang like a roof ;
 The mountains its columns be.
 The triumphal arch through which I march
 With 'hurricane, fire, and snow,
 When the Powers of the air are chained to my chair,
 Is the million-coloured bow ;
 The Sphere-fire above, its soft colours wove,
 While the moist Earth was laughing below.

I am the daughter of Earth and Water,⁷
 And the 'nursling of the Sky :
 I pass through the pores of the ocean and shores ;
 I change, but I cannot die.
 For after the rain—when with never a stain
 The 'pavilion of heaven is bare,
 And the winds and sunbeams', with their convex gleams,
 Build up the blue dome of air—
 I silently laugh at my own cenotaph,⁸
 And out of the caverns of rain,
 Like a child from the womb, like a ghost from the tomb,
 I arise and unbuild it again.

P. B. SHELLEY.^(b)

ar'dours, fer'vours
 dissolve', melt.
 earth quake, a convul'sion
 of the earth.
 glim'ring, flick'ering
 guid'ing, conduct'ing.

hur'ricane, tem'pest
 lash'ing, scourg'ing
 me'teor, flash'ing.
 mor'tals, human beings.
 nurs'ling, child
 pavil'ion, canopy.

sublime', impo'sing.
 thirst'ing, parched.
 unfurl', unfold'.
 volca'noes, burning moun-
 tains.
 whirl'winds, vi'olent blasts

¹ Buds.—In nearly every instance in which this poem is quoted, "birds" is printed for "buds" in this line. It is hard to understand how the "dews" could waken the "birds." Shelley certainly wrote "buds;" and the "mother" on whose breast they are rocked to rest is of course the Earth.

² *Genii*, spirits; supernatural beings. *Genii* is the plural of the Latin *genius*, the guardian deity of a person or place.

³ *San guine*, blood-red [from Lat. *sanguis*, blood].* This is its literal meaning. But the word is now generally used in its secondary sense, of ardent, hopeful.

⁴ *Rack*, thin or broken clouds, drifting across the sky.

⁵ *As...an eagle alit*.—The Sunrise is compared to a restless eagle settling for a

moment on a mountain crag; the Sunset to a brooding dove quietly folding her wings to rest.

⁶ *The woof*, the cross threads in a web. The threads that extend lengthwise are called the *warp*.

⁷ *Daughter of the Earth and Water*.—A poetical description of the physical origin of clouds, which are condensed vapours drawn from the surface of the land and the sea by the heat of the sun.

⁸ *Cenotaph*, a memorial built to one who is buried elsewhere; *lit.* an empty tomb. The poet fancifully calls the blue dome of heaven the cloud's *cenotaph*, because the clear sky is a sign that the cloud is buried out of sight. So, also, the cloud is said to "unbuild" her *cenotaph* when she reappears, and conceals the blue sky.

THE TRIAL BY COMBAT.

PART I.

REBECCA the Jewess, when condemned to death for 'sorcery by the Grand Master of the Order of Knights Templars,¹ 'challenged the 'privilege of "Trial by Combat," in proof of her innocence. Her challenge was accepted, and Sir Brian, a valiant Templar, was named the champion of the holy Order.

Rebecca had difficulty in finding a messenger who would undertake to carry a letter to her father, Isaac of York; at last Higg, the son of Snell, a poor cripple whom she had befriended, 'volunteered his services.

"I am but a maimed man," he said, "but that I can at all stir is owing to her charitable aid.—I will do thine errand," he added, turning to Rebecca, "as well as a crippled object can.—Alas! when I boasted of thy charity, I little thought that I was leading thee into danger."

"God," said Rebecca, "is the Disposer of all. He can turn back the captivity of Judah even by the weakest instrument. Seek out Isaac of York—here is that will pay for horse and man—let him have this scroll. Farewell!—Life and death are in thy haste."

Within a quarter of a mile from the gate of the Preceptory² the peasant met two riders, whom, by their dress and yellow caps, he knew to be Jews; and, on approaching more nearly, he 'discovered that one of them was his ancient 'employer, Isaac of York. The other was the Rabbi Ben Samuel; and both had approached as near to the Preceptory as they dared, on hearing that the Grand Master had 'summoned a chapter, or meeting of the Order, for the trial of a sorceress.

"How now, brother?" said Ben Samuel, interrupting his 'harangue to look towards Isaac, who had but glanced at the scroll which Higg offered, when, uttering a deep groan, he fell from his mule like a dying man, and lay for a minute 'insensible.

The Rabbi now dismounted in great alarm, and hastily applied the 'remedies which his art suggested for the recovery of his companion. He had even taken from his pocket a cupping apparatus,³ and was about to use it, when the object of his 'solicitude suddenly revived; but it was to dash his cap from his head, and to throw dust on his gray hairs. The 'physician was at first inclined to ascribe this sudden and violent emotion

to the effects of insanity; and, adhering to his original purpose, began once again to handle his implements. But Isaac soon convinced him of his error.

"Child of my sorrow," he said, "well shouldst thou be called Benoni, instead of Rebecca! Why should thy death bring down my gray hairs to the grave?"

"Brother," said the Rabbi, in great surprise, "I trust that the child of thy house yet liveth?"

"She liveth," answered Isaac, "but she is captive unto those men of Belial,⁴ and they will wreak their cruelty upon her, sparing her neither for her youth nor her comely favour. Oh, she was as a crown of green palms to my gray locks; and she must wither in a night, like the gourd of Jonah!⁵ Child of my love! child of my old age!—O Rebecca, daughter of Rachel, the darkness of the shadow of death hath encompassed thee."

"Yet read the scroll," said the Rabbi; "'peradventure it may be that we may yet find out a way of deliverance."

"Do thou read, brother," answered Isaac, "for mine eyes are as fountains of water."

The physician read, but in their native language, the following words:—

"TO ISAAC, the son of Adoni'kam, whom the Gentiles call ISAAC OF YORK, peace and the blessing of the promise be multiplied unto thee.

"My father, I am as one doomed to die for that which my soul knoweth not—even for the crime of witchcraft. My father, if a strong man can be found to do battle for my cause with sword and spear, according to the custom of the Nazarenes,⁶ and that within the lists of Tem'plestowe, on the third day from this time, 'peradventure our fathers' God will give him strength to defend the innocent, and her who hath none to help her. But if this may not be, let the virgins of our people mourn for me as for one cast off, and for the hart that is stricken by the hunter, and for the flower which is cut down by the scythe of the mower. Wherefore, look now what thou doest, and whether there be any rescue.

"One Nazarene warrior might, indeed, bear arms in my behalf, even Wilfred, son of Cedric, whom the Gentiles call I'vanhoe. But he may not yet endure the weight of his armour. Nevertheless, send the tidings unto him, my father; for he hath favour among the strong men of his people, and as he was our companion in the house of bondage, he may find some one to do battle for my sake. And say unto him, even unto him, even unto Wilfred, the son of Cedric, that if Rebecca live, or if Rebecca die, she liveth or dieth wholly free of the guilt she is charged withal.

"And if it be the will of God that thou shalt be deprived of thy daughter, do not thou tarry, old man, in this land of bloodshed and cruelty; but betake thyself to Cordo'va,⁷ where thy brother liveth in safety, under the shadow of the throne, even of the throne of Boab'dil the Sar'acen: for less cruel are the

'cruelties of the Moors unto the race of Jacob than the cruelties of the Nazarenes of England."

Isaac listened with tolerable composure while Ben Samuel read the letter, and then again resumed the 'gestures and exclamations of Oriental sorrow, tearing his garments, besprinkling his head with dust, and 'ejaculating, "My daughter! my daughter!"

"Yet," said the Rabbi, "take courage, for this grief 'availeth nothing. Seek out this Wilfred, the son of Cedric. It may be he will help thee with counsel or with strength; for the youth hath favour in the eyes of Richard, called of the Nazarenes the Lion-Heart, and the tidings that he hath returned are constant in the land. It may be that he may obtain his letter, and his signet, commanding these men of blood, who take their name from the Temple, to the 'dishonour thereof, that they proceed not in their purposed wickedness."

"I will seek him out," said Isaac; "for he is a good youth,* and hath 'compassion for the exile of Jacob. But he cannot bear his armour, and what other Christian shall do battle for the oppressed of Zion?"

SIR W. SCOTT.

avail'eth, prof'iteth.
bond'age, slav'ery.
chal'enged, claimed.
compan'ion, asso'ciate.
compas'sion, pity
cru'elties, atroc'ities
deliv'erance, release'.
deprived', bereft'.
discov'ered, found.

dishon'our, shame.
ejac'ulating, exclaim'ing.
employ'er, mas'ter.
encom'passed, surround'ed.
ges'tures, ac'tions.
harangue', speech
im'plements, appara'tus.
insan'ity, delir'ium.
insen'sible, uncon'scious.

mul'tiplied, increased.
peradvent'ure, perchance'.
phys'ician, heal'er.
priv'ilege, right.
rem'edies, resto'ratives.
solig'itude, anx'ity.
sor'cery, witch'craft.
sum'moned, called.
volunteered', offered freely.

¹ **Knights Templars**, an order of knighthood established for the protection of pilgrims to Jerusalem, 1118 A.D. They took their name from the Temple.

² **Precep'tory**.—Heads of the several colleges of the Order, over whom the Grand Master was supreme, were called Preceptors; and the place where they met was called the *Preceptory*.

³ **Cupping appara'tus**, a *cup*-shaped vessel of glass used for blood-letting. The surgeon draws blood with it by exhausting the air in the cup.

⁴ **Men of Be'lial**.—In the Bible wicked

and profligate men are called "children of Belial." (See *Judges*, xx. 13.) *Belial* signifies "worthlessness."

⁵ **Gourd of Jonah**.—The gourd which sheltered the prophet Jonah at Nineveh withered in a night. (See *Jonah*, iv. 6-10.)

⁶ **Nazarenes**, Christians; so called by the Jews because they were followers of Jesus of Nazareth.

⁷ **Cordova**, an ancient Moorish town on the Guadalquivir, in Andalusia in Spain, famous for its leather, hence called *cordovan* and *cordwain*. A *cordwainer* is a worker in cordovan.—a shoemaker.

QUESTIONS.—What privilege did Rebecca claim when she had been condemned? Who was named the champion of the Temple? Who at last volunteered to carry her letter? Where did he meet Isaac? What effect had the perusal of Rebecca's letter upon the latter? Who accompanied him? Whose help did Rebecca ask him to obtain?

THE TRIAL BY COMBAT.

PART II.

OUR scene now returns to the exterior of the Castle, or Preceptory, of Tem'plestowe, about the hour when the bloody die was to be cast for the life or death of Rebecca. A throne was erected for the Grand Master at the east end of the tilt-yard, surrounded with seats of distinction for the Preceptors and Knights of the Order.

At the opposite end of the lists was a pile of fagots, so arranged around a stake, deeply fixed in the ground, as to leave a space for the victim whom they were destined to consume, to enter within the fatal circle in order to be chained to the stake by the fetters which hung ready for the purpose.

The unfortunate Rebecca was conducted to a black chair placed near the pile. On her first glance at the terrible spot where preparations were making for a death alike dismaying to the mind and painful to the body, she was observed to shudder and shut her eyes—praying internally, doubtless, for her lips moved though no speech was heard. In the space of a minute she opened her eyes, looked fixedly on the pile, as if to familiarize her mind with the object, and then slowly and naturally turned away her head.

It was the general belief that no one could or would appear for a Jewess accused of sorcery; and the knights whispered to each other that it was time to declare the pledge of Rebecca forfeited. At that instant a knight, urging his horse to speed, appeared on the plain advancing towards the lists. A hundred voices exclaimed, "A champion! a champion!" And despite the prejudices of the multitude, they shouted unanimously as the knight rode into the tilt-yard.

The second glance, however, served to destroy the hope that his timely arrival had excited. His horse, urged for many miles to its utmost speed, appeared to reel from fatigue; and the rider, however undauntedly he presented himself in the lists, either from weakness, from weariness, or from both combined, seemed scarce able to support himself in the saddle.

To the summons of the herald, who demanded his rank, his name and purpose, the stranger knight answered readily and boldly, "I am a good knight and noble, come hither to uphold with lance and sword the just and lawful quarrel of this damsel, Rebecca, daughter of Isaac of York; to maintain the doom



TILT-YARD.

pronounced against her to be false and truthless, and to defy Sir Brian the Templar as a traitor, murderer, and liar; as I will prove in this field with my body against his, by the aid of God, and of Saint George,¹ the good knight."

"The stranger must first show," said a Templar, "that he is a good knight, and of honourable lineage. The Temple sendeth not forth her champions against nameless men."

"My name," said the knight, raising his helmet, "is better

known, my lineage more pure, than thine own. I am Wilfred of Ivanhoe."

"I will not fight with thee at present," said the Templar, in a changed and hollow voice. "Get thy wounds healed, 'purvey thee a better horse, and it may be I will hold it worth my while to scourge out of thee this boyish spirit of 'bravado."

"Ha! proud Templar," said Ivanhoe, "hast thou forgotten that twice thou didst fall before this lance? Remember the lists at A'cre—remember the passage of arms at Ash'by—remember thy proud vaunt in the halls of Roth'erwood, and the gage of your gold chain against my reliquary,² that thou wouldst do battle with Wilfred of Ivanhoe, and recover the honour thou hadst lost! By that reliquary, and the holy relic it contains, I will 'proclaim thee, Templar, a coward in every Court in Europe—unless thou do battle without further delay."

Sir Brian turned his countenance 'irresolutely towards Rebecca, and then exclaimed, looking fiercely at Ivanhoe, "Dog of a Saxon! take thy lance, and prepare for the death thou hast drawn upon thee!"

"Does the Grand Master allow me the combat?" said Ivanhoe.

"I may not deny what thou hast challenged," said the Grand Master, "provided the maiden accept thee as her champion. Yet I would thou wert in better plight to do battle. An enemy of our Order hast thou ever been, yet would I have thee 'honourably met withal."

"Thus—thus as I am, and not otherwise," said Ivanhoe; "it is the judgment of God—to his keeping I 'commend myself.—Rebecca," said he, riding up to the fatal chair, "dost thou accept of me for thy champion?"

"I do," she said, "I do,"—'fluttered by an emotion which the fear of death had been unable to produce—"I do accept thee as the champion whom Heaven hath sent me. Yet, no—no; thy wounds are uncured. Meet not that proud man—why shouldst thou perish also?"

But Ivanhoe was already at his post; he had closed his visor³ and assumed his lance. Sir Brian did the same; and his esquire remarked, as he clasped his visor, that his face—which had, 'notwithstanding the variety of emotions by which he had been agitated, continued during the whole morning of an ashy paleness—had now become suddenly very much flushed.

The Grand Master, who held in his hand the gage of battle, Rebecca's glove, now threw it into the lists. The trumpets sounded, and the knights charged each other in full career. The

weary horse of Ivanhoe, and its no less 'exhausted rider, went down, as all had expected, before the well-aimed lance and 'vigorous steed of the Templar. This issue of the combat all had foreseen; but although the spear of Ivanhoe, in comparison, did but touch the shield of Sir Brian, that champion, to the 'astonishment of all who beheld it, reeled in his saddle, lost his stirrup, and fell in the lists!

Ivanhoe, 'extricating himself from his fallen horse, was soon on foot, hastening to mend his fortune with his sword; but his 'antagonist arose not. Wilfred, placing his foot on his breast, and the sword's point to his throat, commanded him to yield him, or die on the spot. The Templar returned no answer.

"Slay him not, Sir Knight," cried the Grand Master "'unshriven and 'unabsolved—kill not body and soul! We acknowledge him 'vanquished."

He descended into the lists, and commanded them to unhelm the conquered champion. His eyes were closed—the dark red-flush was still on his brow. As they looked on him in astonishment, the eyes opened—but they were fixed and glazed. The flush passed from his brow, and gave way to the pallid hue of death. 'Unscathed by the lance of his enemy, he had died a victim to the violence of his own contending passions.

"This is indeed the judgment of God," said the Grand Master, looking upwards—" *Fiat voluntas tua!*"⁴

When the first moments of surprise were over, Wilfred of Ivanhoe 'demanded of the Grand Master, as judge of the field, if he had manfully and rightfully done his duty in the combat?

"Manfully and rightfully hath it been done," said the Grand Master; "I pronounce the maiden free and guiltless. The arms and the body of the deceased knight are at the will of the victor."

"I will not despoil him of his weapons," said the Knight of Ivanhoe, "nor condemn his corpse to shame. God's arm, no human hand, hath this day struck him down. But let his 'obsequies be private, as becomes those of a man who died in an unjust quarrel.—And for the maiden—"

He was 'interrupted by the clatter of horses' feet, advancing in such numbers, and so rapidly, as to shake the ground before them; and the Black Knight galloped into the lists. He was followed by a numerous band of men-at-arms, and several knights in complete armour.

"I am too late," he said, looking around him. "I had doomed Sir Brian for mine own property.—Ivanhoe, was this well, to take on thee such a 'venture, and thou scarce able to keep thy saddle?"

"Heaven, my liege," answered Ivanhoe, "hath taken this proud man for its victim. He was not to be honoured in dying as your will had designed."

"Peace be with him," said Richard,⁵ looking steadfastly on the corpse, "if it may be so—he was a gallant knight, and has died in his steel harness full knightly."

During the tumult Rebecca saw and heard nothing: she was locked in the arms of her aged father, giddy, and almost senseless, with the rapid change of circumstances around her. But one word from Isaac at length recalled her scattered feelings.

"Let us go," he said, "my dear daughter, my recovered treasure—let us go to throw ourselves at the feet of the good youth."

"Not so," said Rebecca; "oh no—no—no;—I must not at this moment dare to speak to him. Alas! I should say more than—No, my father; let us instantly leave this evil place."

Isaac, yielding to her entreaties, then conducted her from the lists, and by means of a horse which he had provided, transported her safely to the house of the Rabbi Nathan.

SIR WALTER SCOTT. (b)

antag^onist, oppoⁿent.
astonishment, surprise.
brava^o do, boastfulness.
champion, defend^{er}.
commend^o, intrust^o.
consume^o, destroy^o.
demand^{ed}, asked.
designed^o, intend^{ed}.
destined, appoint^{ed}.
dismay^{ing}, appall^{ing}.
distinction, honour.
entreaties, solicitations.
exhaust^{ed}, wearied.

extricating, disengag^{ing}.
familiarize^o, accus^{tom}.
flut^{ter}ed, agit^{ated}.
forfeited, sacrific^{ed}.
hon^orably, worthily.
interⁿally, ment^{al}ly.
interrupt^{ed}, check^{ed}.
irresol^{ut}ely, unstead^{ily}.
lin^eage, descent^o [of].
notwithstanding, in spite
obsequies, fun^{er}al rites.
prejudices, predilec^{tions}.
proclaim^o, denounce^o.

pronounced^o, proclaimed^o.
purvey^o, provide^o.
transport^{ed}, convey^{ed}.
unabsolved^o, unpard^{oned}.
unanⁱmously, with one ac^{cord}.
undaunt^{ed}ly, val^{iant}ly.
unfor^{tu}nate, luck^{less}.
unscathed^o, unin^{jured}.
unshriv^{en}, not confess^{ed}.
vanquished, defeat^{ed}.
ven^{ture}, haz^{ard}.
vig^{orous}, power^{ful}.

¹ Saint George, the patron saint of English chivalry, represented in the Order of the Garter. The badge of the Order represents St. George performing the feat of killing the dragon.

² Reliquary, a casket for holding relics, or memorials of saints. [Lat. *reliquiæ*; from *relinquo*, I leave behind.]

³ Vis^{or}, the front part of a helmet, made of bars, or perforated, to enable the wearer to see. [Lat. *visus*, seen.]

⁴ Fiat voluntas tua, "Thy will be done,"—part of the Latin version of the Lord's Prayer.

⁵ Richard. — The Black Knight was King Richard of the Lion Heart himself.

QUESTIONS.—Where was the combat to take place? Where was the Grand Master's position? What was at the opposite end of the lists? What was the general belief? Who at last appeared? Why did the Templar at first decline to fight with him? What fear did Rebecca express? What was the result of the encounter of the knights. What befell the Templar immediately afterwards? What had killed him? What verdict did the Grand Master now give regarding Rebecca? Who presently arrived on the scene? Why was the Black Knight disappointed? Who was this Black Knight? Who had embraced Rebecca? What did he ask her to do? What did she reply?

DAMASCUS AND LONDON.

PART I.

DAMASCUS is one of the greatest and most truly 'oriental cities in the world ; let us, therefore, for our amusement and instruction, *compare it in its general 'external features with London.* In this way we may, perhaps, be able to get a clear idea of an oriental city.

From the dome of St. Paul's you behold London lying around, like a wide, waving, endless sea of slates, tiles, houses, churches, spires and monuments of all kinds. The eye is 'relieved with the heights and the hollows, the great and the little, the lowly lanes and the heaven-pointing spires.

In Damascus the scene is very different : there is much less variety ; no spires, but multitudes of domes upon the mosques,¹ and baths surmounted by little minarets.² The houses are all flat-roofed, and the hue of the whole is a dim ash colour. A stillness like that of the dead reigns over the whole scene ; and the city, surrounded with its 'celebrated evergreen gardens, suggests the idea of a ship sailing away through an ocean of verdure. Dun walls, flat roofs, domes and minarets, the stillness of death and the 'verdure of paradise, make up the elements of this most charming oriental scene. Tradition tells that Moham'med^(b) refused to enter the city, saying, "As there is only one paradise 'allotted to man, I shall reserve mine for the future world."

London and most large western cities are very often surmounted by clouds of smoke, owing to the coldness of the climate and the great 'consumption of coal. The sky over Damascus appears as bright and serene as elsewhere. For the greater part of the year the climate renders little or no fire necessary ; and the little that is used is not from coal, but from wood or charcoal. The rooms have neither chimneys nor fire-places, and, except for the 'preparation of the supper, fire is rarely required during the course of the day. Hence the oriental city is not 'encircled with a graceful wreath of smoke, to remind you either of an ungenial clime or of the progress of mechanical genius.

But approach the city. All seems very still and quiet. Is it an 'enchanted capital, whose inhabitants have been turned into stone or brass ? No ; but the streets are not paved ; there are no wheel-carriages of any kind ; the shoes, more like foot-gloves than shoes, have no nails ; no cotton-mills lift up their voice in

the streets ;—all those noisy triumphs of mechanical genius, in the way of forging, spinning, weaving, beetling, which are so frequent among us, are unknown in Damascus. The Easterns hold on their old course steadily, and yield to no 'seductions of novelty : the water-pump was invented in Alexandria, but the Alexandrians still prefer the ancient well and bucket.

But if the ear is not saluted with the roar and 'turbulence of mills, forges, and mechanical operations, Damascus has its own peculiar sounds, not less various and interesting in their way. The streets are filled with innumerable dogs, lean, lazy, and hungry-like ; mules, donkeys, camels, dromedaries, meet and mingle in those narrow streets, and impress both the eye and the ear of the traveller with a pure and perfect idea of Orientalism.

British cities spread out, as it were 'indefinitely, into the country, in the way of parks, gardens, summer-houses, gentlemen's seats, and smiling villages. It is not so in the East. The city is within the walls, and all without is garden as at Damascus, or desert as at Jerusalem. Single houses are, in any country, the proof of the 'supremacy of law as well as of the 'respectability and independence of labour. Life and property have not attained perfect security in the East : a pistol, or rather a musket, was presented at my breast, within half a mile of Damascus, in broad daylight !

These noble gardens have no inhabitants ; nor do any fine cottages, tasteful houses, or princely palaces, adorn this fertile region. Within the city you are safe ;—without are dogs,³ insecurity of property, and the 'liability of being shot. The whole population, therefore, live either in cities or in villages, except in such regions as Beirout, where European influence and power prevail. There, you have gardens and single houses, much after the English fashion.

But place a Damascene at Charing Cross, or at Cheapside, and what do you think would amaze him most ? The number of 'vehicles, undoubtedly. He would say, " When will this stream of cars, cabs, coaches, carriages, omnibuses of every shape and size, have an end ? Are the people mad ? Can they not take their time ? "

But had the oriental nations of antiquity no wheel-carriages ? They had ; the Jews and the Egyptians had them, the Greeks and the Romans had them, and perhaps they may exist in some parts of the East to the present time. Here in Damascus there are none. The streets are not formed for them. The horses are trained only for riding. There are no common, 'levelled, and

well-ordered public roads. Our fathers used no coaches;⁵ they preferred the more manly exercise of horsemanship, and yielded the soft, effeminate luxury of the coach to the ladies. But in London there are now about nine hundred omnibuses, each of which takes about £1000 annually. Such is the present state of coaching with us. How different is Damascus! and how different must the aspect of the streets appear!

With us, the city is laid out in streets, squares, crescents, royal circuses, and similar devices of beauty and regularity. This is the case particularly in the "west-ends" and newer parts of our cities and towns. There is nothing of this in Damascus, or in any of the eastern cities that I have seen: squares, crescents, and circuses are unknown. The streets are extremely irregular, crooked, winding, and narrow; which seems to arise out of the anxiety to find a protection from the sun.

In the narrower streets, where the houses are high, the sun's rays are effectually excluded; and in the wider ones, where this is not attainable, the numerous windings and angles afford salient points where the passenger may for a moment or two enjoy the shade. This may appear trifling, but I have often found the heat of the solar rays so intense and unendurable that even the sun-burnt Bedouins,⁶ the children of the desert, were glad of the least passing shade, the least momentary shelter, from the intolerable heat.

In the bazaars of Damascus, on the contrary, the streets or avenues are laid out with the greatest regularity, and are as straight as possible. In the heat of the day these are nearly deserted; business is at a stand; the merchant is reclining with pipe in mouth, in a state of semi-somnolence, in which the influence of opium or the odour of the redolent weed has carried the fertile imagination into the regions of celestial ease.

In an eastern city you have no prospect. With us you can see a considerable way along the streets. In Damascus you feel absolutely isolated; the streets are so narrow and crooked that at the most you can rarely see a perch before you, and nothing that does meet the eye in the way of buildings has the least attraction. Irregularity in style and clumsiness of execution, combined with the absence of fine doors, all windows, everything in the shape of fronts, railings, ornaments, &c., make the impression in that respect very disagreeable.

In our streets, we are pleased with large houses, fine rows of large windows, tastefully arranged doors and entrances;—everything seems to convey the idea of order, attention, cleanliness,

combined with the possession of wealth and the 'consciousness that it is our own. We conceal nothing, for we have no motive for concealment. Our house is our palace, and though the winds may whistle through our dilapidated halls, the Queen herself dare not enter without our permission. Freedom has increased our property, and our wealth has 'enhanced the value of our freedom. Our temptation is not to concealment, but to ostentation and unnecessary display.

This 'tendency or temptation among us stands in connection with our character as a highly civilized and commercial nation. Great transactions cannot be carried on without credit, and credit is necessarily based on the belief of wealth; so that very often, where there may be little real property, it may be most desirable that there should be the appearance of it.....

The mean, low door in Damascus, tells you of tyranny, 'concealment, and the want of 'confidence in public justice. Misery without and splendour within, is a principle which befits a land where paper is just paper, whatever name it bears; where gold is the only circulating medium; where a man's own house is his bank; and where the 'suspicion of being rich may make him a prey to the rapacity of the government.

On the contrary, the noble streets, squares, crescents, &c., of our modern cities, are clear indications, not only of great wealth and power, but also of something far dearer and nobler—namely, that *confidence in one another*, formed by 'myriads of 'concurring 'circumstances, of which Christianity is one of the mightiest, and out of which flow most of the blessings of European civilization and free political institutions.

But what is the use of that stone by the door-post? These stones are the steps from which ladies mount their donkeys, mules, and horses. Nor should you think this strange. In the fourteenth and fifteenth centuries, Paris presented these mounting-stones at all the angles of the streets, and at other convenient places. At Frankfort on the Main, there was a certain gate at which these conveniences were prepared for the emperor and the magnates of the German Diet;⁷ and I have no doubt that, in the days of feudalism⁸ and knightly glory, London was not behind its neighbours in this respect.

REV. DR. GRAHAM.

ab'solutely, whol'ly.
allot'ted, assigned'.
attain'able, procur'able.
celebrated, renowned'.
celes'tial, heav'only.
cir'cumstances, events'

conceal'ment, se'crecy.
concur'ring, agree'ing.
con'fidence, trust.
con'sciousness, knowl'edge.
consump'tion, employ'-
ment

disagree'able, unpleas'ant
effec'tually, success'fully.
effem'inate, wom'anish.
enchanted, bewitched'.
encir'cled, encom'passed.
enhanced', increased'.

exter'nal, out'ward.
extreme'y, ver'y.
indef'inately, without
bounds.
intol'erable, insufferable.
isolated, alone'.
lev'elled, smoothed.
liability, dān'ger.
mo'mentary, tem'porary.

myr'iads, hosts.
orient'al, east'ern.
prepara'tion, cook'ing.
protec'tion, cover'ing.
reclin'ing, rest'ing.
red'olent, fragrant.
relieved', gratified.
respectability, estima'tion.

seduc'tions, allure'ments.
semi-som'nolence, being
half-asleep.
suprem'acy, author'ity.
suspicion, surmise'.
ten'dency, inclina'tion.
tur'bulence, tu'mult.
ve'hicles, car'riages.
ver'dure, green'ness.

¹ **Mosque**, a Mohammedan place of worship.

² **Min'arets**, tall and slender turrets, surrounded with balconies, from which the people are summoned to prayer.

³ **Without** are dogs, that is, robbers; rapacious fellows.

⁴ **Damascene'**, a native of Damascus; also applied to Damascus plums, and contracted into *Damsons*.

⁵ **Our fathers used no coaches**.—*Whirligig*es were used in England in 1398, for the mother of Richard II. used one in fleeing from the rebellious people. They were afterwards disused, as effeminate and unnatural, until, in 1580, the Earl of Arundell introduced the *spring-coach* from Germany or France, which speedily became popular with the nobility. In 1601 they were forbidden by Parliament, as effeminate; yet, in defiance of all legislation, they were common enough in the city of London.

in 1605. In the year 1625 hackney coaches were established and licensed; and in 1778 the number of coaches in England was 23,000 which paid £117,000 duty. The origin of the easy suspension or spring-coach is ascribed to Hungary; and the post-chaise we owe to France.

⁶ **Bed'ouins**, a tribe of wandering Arabs, dwelling in tents, and scattered over Arabia and parts of Africa. The word means "dwellers in the desert."

⁷ **German Diet**, the meetings of the princes who formed the confederation of the German Empire. The *Diet* was so called because its sittings were continued from day to day. [Lat. *dies*, a day.] The last Diet met at Frankfort in 1860. The Parliament of the new German Empire meets at Berlin.

⁸ **Feu'dalism**, the system of government under which lands were held by a vassal from a superior, on condition of the former rendering military service to the latter.

QUESTIONS.—What contrast to London does Damascus present, in respect of its buildings? What, in respect of its atmosphere? What is the cause of the great stillness in the eastern city? Why are there no country-houses around Damascus? What are these the proof of in any country? What would most strike a Damascene in the streets of London? Why are the streets in eastern cities made narrow and crooked? What effect has this upon the prospect? What are fine houses and streets proof of in a commercial nation? What do the mean low doors in Damascus indicate? For what purpose are stones set up at the door-posts?

THE SOLDIER'S GRAVE.

THERE'S a white stone placed upon yonder tomb—
Beneath is a soldier lying;
The death-wound came amid sword and plume,
When banner and ball were flying.

Yet now he sleeps, the turf on his breast,
By wet wild-flowers 'surrounded;
The church shadow falls o'er the place of his rest,
Where the steps of his childhood 'bounded.

There were tears that fell from manly eyes,
There was woman's gentle weeping,
And the wailing of age and infant cries,
O'er the grave where he lies sleeping.

He had left his home in his spirit's pride,
 With his father's sword and blessing;
 He stood with the 'valiant side by side,
 His country's wrongs 'redressing.

He came again in the light of his fame,
 When the red 'campaign was over;
 One heart that in secret had kept his name,
 Was claimed by the soldier lover.

But the cloud of strife came up on the sky;
 He left his sweet home for battle,
 Left his young child's lisp for the loud war-cry,
 And the cannon's long death-rattle.

He came again—but an 'altered man:
 The path of the grave was before him,
 And the smile that he wore was cold and wan,
 For the shadow of death hung o'er him.

He spoke of 'victory—spoke of cheer:
 These are words that are 'vainly spoken
 To the childless mother or orphan's ear,
 Or the widow whose heart is broken.

A helmet and sword are 'engraved on the stone,
 Half hidden by yonder willow;
 There he sleeps, whose death in battle was won,
 But who died on his own home pillow!

L. E. LONDON. (4)

al'tered, changed.

bound'ed, leapt.

campaign', pe'riod of war.

engraved', carved.

redress'ing, right'ing.

surround'ed, encir'led.

vain'ly, i'dly.

val'iant, brave.

vic'tory, tri'umph.

DAMASCUS AND LONDON.

PART II.

OUR cities are filled and ornamented with hotels, coffee-houses, hospitals, work-houses, prisons, and similar conspicuous buildings. Generally speaking, there are none of these in the East. 'Hospitals and institutions for the sick and the poor were the offspring of Christianity, and are, I am 'inclined to think, peculiar to Christian lands.

There are few prisons in the East, and these are very wretched. Imprisonment as a *punishment* is little practised, and is altogether 'unsuited to the Mohammedan law and mode

of thinking. Life is not so sacred as with us. It is urged that if a man deserves to be confined as a dangerous member of society, he deserves to die; society will never miss him, and some expense will be spared: "Off with his head; ¹—so much for Buckingham."

Hence in Damascus, and in the East generally, people are not liable to the 'reproach which is sometimes brought against us—that the best house in the county is the jail. Besides, in the East, punishment follows crime instantaneously. The judge, the mufti,² the prisoner, and the executioner, are all in the court at the same time. As soon as the sentence is delivered, the back is made bare, the donkey is ready (for 'perjury, in Damascus, the man rides through the city with his face to the tail), or the head falls, according to the crime, in the presence of all the people. Awful severity, and the rapidity of lightning, are the principles of their laws; nor do they deem it necessary to make the exact and minute 'distinctions of crime that we do. The object is to prevent crime, and this is most 'effectually done by the principle of terror and the certainty of immediate punishment.

A certain baker in Constantinople used false weights in selling his bread: the Sultan ordered him to be roasted alive in his own oven, and afterwards boasted that this one act of severity had effectually prevented all 'similar crimes. Here you see the principle of government in the East;—it is nothing but terror and religious fanaticism.

As to coffee-houses, there are plenty of them in Damascus; but they can hardly be called houses, much less palaces: they are open courts with fountains of water, 'sheltered from the sun; and in many cases they have little stools, some six inches high, on which, if you do not prefer the ground, you can rest while you enjoy your sherbet, coffee, and tobacco. Pipes, nargilies,³ ices, eau sucré,⁴ sherbet, and fruits of all kinds, are in abundance, and of the lowest possible price.

These cafés are very quiet: there is no 'excitement, no reading of newspapers, no discussion of politics and religion; no fiery demagogue or popular orator to mislead the people; no Attic⁵ wit provokes a smile, and no bold repartee calls forth 'applauding laughter on the other side. But yet they have their own 'amusements, and they play earnestly at games both of chance and of skill. The traveller tells his escapes and dangers to an admiring little circle; the story-teller repeats one of the "Thousand and One Nights"⁶ to a wondering audience;

and if memory fails, the imagination, fertile as an oriental spring, supplies its boundless stores.

We have in the East great khans,⁷ but they bear little relation to our hotels. *Ring, eat, and pay*, is not the law in the East. They have no bells in Damascus, nor even the silver call or whistle which our grandmothers used in England. Bells in churches and in houses are alike an 'abomination to the Moslems; and the Maronites⁸ alone, by 'permission of the Government, have a right to use them.

The Khan in Damascus is a large circular building surmounted by a noble dome, in which the great merchants have their goods and wares of all kinds; and in which the traveller can find a resting-place for himself and his camels, and be supplied with water from the central fountain;—but there are no tables spread for the travellers, and no beds ready made for the weary pilgrims: you must find your dinner as you best can, make your own bed, and when you rise, take it up, and walk. The Khan is, however, a very noble building, and excites not a little 'astonishment among the Orientals.

In European cities your attention is arrested by book-shops, pictures, placards, caricatures, &c.; now in Damascus we have nothing of the sort. Among the Jews you may find a few miserable stalls, from which you may pick up a copy of the Talmud,⁹ or some old rabbinical prayer-book.¹⁰ The sheikh¹¹ who sold me the Koran,¹² laid his hand upon his neck, and told me to be silent, for were it known that he had done so, he might lose his head. In the schools they are taught only to read the Koran, and to master the simplest elements of arithmetic and writing.

Men of letters there are at present none, and the highest of their sciences is the knowledge of grammar. When I lived in Damascus, some wit (the first thing of the kind known) uttered a pun or squib 'reflecting on the 'corpulency of the pasha, and he was banished for it! The old observation of the caliph, as he fired the Alexandrian library,¹³ holds true in the East still—"If the books agree with the Koran, they are useless; if they oppose it, they are 'pernicious; and in both cases they are unnecessary."

"But has not Damascus one hundred thousand inhabitants?" says the traveller. "Where are their newspapers, spreading light and knowledge through a portion of the sixty millions who use the noble Arabic language? Take me to the office of some Oriental *Sun*, *Times*, *Globe*, or *Morning Chronicle*."

There is no such thing. Even in Constantinople there is only one newspaper, and the one half of it is in Turkish, and the

other in French! Tyranny and 'superstition, like two monstrous mill-stones, rest upon and compress the energies of the oriental nations; even Greece, the fountain of science and literary and mental activity, was for a time blotted from the rank of nations, and the 'inquisitive character of its people all but 'annihilated by the stern rule of the Turks.¹⁴.....

But there is another great difference between the general appearance of London and of Damascus, namely, in the eastern city you see not the bright, joyous countenance of woman—she is deeply veiled. In Egypt she is enveloped from head to foot in a dark, and in Syria in a white sheet, which effectually 'obliterates all traces of shape, absolutely equalizes to the eye all ranks, ages, and conditions, and suggests to the beholder the idea of a company of ghosts.....

Conceive now how 'ludicrous the streets of London would appear, if green, white, black, and gray turbans moved 'indiscriminately, instead of the present hats; and if all the ladies, walking or on donkeys, instead of the present varieties of showy dress, beautiful bonnets, and smiling faces, presented only the appearance of headless ghosts clothed in white!

As to the *general motion and life*, the difference is immense between Damascus and a western city. Let us glance for a moment at two streets, and compare them:—

1. In Damascus there is more *openness and publicity*. The tradesmen of every kind work in the open bazaars; many of the merchants and artisans dine in public—that is, eat their bread and oil, bread and honey, or bread and grapes, in the street where they work. All are smoking, without exception, in the intervals of business. Some are 'engaged in reading the Koran, swinging their bodies to and fro in the most earnest and violent manner. Some are sleeping calmly, with the long pipe in their mouth! There a butcher is killing a sheep, surrounded by a circle of hungry, 'expectant dogs. Yonder is a company engaged at a game of skill. Everything is done in the open air, and nothing seems to be concealed but the ladies.

2. In the eastern city there is much more *quiet*. Their manners are sober, formal, and stately; arising partly, I believe, from the famous and universal 'dogma of obedience. There is, indeed, hardly any other law. The subject, the wife, the son, the slave obeys; to hear is to obey. This principle of unhesitating, unquestioning obedience leads to quiet. There is no contradiction. There is nothing to talk about. There is nothing like politics. There is no public opinion, of course; for that is

based upon private opinion, and determined, resolute will. This extraordinary quiet and 'solemnity of 'demeanour may arise partly, also, from a sense of danger. Every man has arms, and has the right both of wearing and of using them : and no man makes a journey, be it only to a neighbouring village, without sword and pistols. Now this tends to quiet, earnest, solemn manners. If a scuffle takes place, it is not a black eye or a bloody face that is the result, but the certain death of some of the parties; and hence they are taught the 'principle of self-restraint and moral control.....

3. The Arabs, and Orientals in general, *sit* much more than we do. The tradesmen all sit at their work : the smith, the carpenter, and the merchant, the butcher, the joiner, and the spice-monger, sit quietly and 'transact their business. They sit as tailors do, cross-legged, but with their feet doubled in beneath them. They sit on their feet, and maintain that such is the most natural and easy position ! They seem to have no pleasure in motion : no man goes out to take a walk ; no man moves for the sake of exercise. They go out, as they say, to *smell the air*, by some spreading tree or fountain of water. And yet they are capable of 'enduring great and long-continued labour. Abu Mausur travelled with us nearly forty days, during which we rode at the rate of from six to eighteen hours a day ; and yet, though never upon a horse, he was always with us at the requisite time and place. He performed the journey on foot, and was rarely far behind.

Take, then, these things together, and you will easily perceive that in the city of Damascus everything is still and calm as the unclouded sky and the balmy air. The hoof of the camel falls noiselessly on the unpaved street ; the sheep-skin foot-gloves of the Damascenes make no sound ; and all the movements, both of men and of animals, are slow and solemn.

REV. DR. GRAHAM.

abomina'tion, object of
disgust.
amuse'ments, entertain-
ments.
anni'hilated, exting'uish-
ed.
applaud'ing, approv'ing.
aston'ishment, won'der.
cor'pulence, fat'ness.
demean'our, deport'ment.
distinc'tion, discrimina-
tion.
dog'ma, max'im · law

effec'tually, thor'oughly.
endür'ing, undergo'ing.
engaged', oc'cupied.
excite'ment, stir.
expec'tant, wait'ing
hos'pitals, infirm'aries.
inclined', disposed'.
indiscrim'imately, confu-
sedly.
inquis'itive, pry'ing.
instanta'neously, imme-
diately.
lu'dicrous, ridic'ulous.

oblit'erates, destroys'.
per'jury, false swear'ing.
permis'sion, sanc'tion.
perni'cious, mis'chievous.
prin'ciple, rule.
reflect'ing, animad'vert'ing.
reproach', cens'ure.
shel'tered, protect'ed.
sim'ilar, of the same na-
solem'nity, grav'ity. [tura.
superst'i'tion, fanaticism.
transact', discharge'.
unsuit'ed, inapprop'iate.

¹ "Off with his head;—so much for Buckingham."—This now famous line occurs in an altered version of the play of *Richard III.*, by Colley Cibber, a dramatist of the time of George I. In Shakespeare's *Richard III.* the order, "Off with his head," is given by Glo'ster with reference to Hastings.

² Muf'ti, a Mohammedan high-priest.

³ Nar'gilies, tobacco pipes constructed so as to make the smoke pass through scented water.

⁴ Eau sucré (*ô soo-cray*), sugared water.

⁵ Attic, elegant; pure; characteristic of *Attica* in Greece, or of Athens its capital.

⁶ "Thousand and One Nights."—A famous collection of Arabian tales, called "The Arabian Nights' Entertainments," translated into French in 1704, and since into most modern languages.

⁷ Khan, a caravansary, or eastern inn.

⁸ Ma'ronites, a sect of Christians in the district of Mount Lebanon. (See lesson on *Mount Lebanon*, p. 208, Note 6.)

⁹ Tal'mud, the book containing the ancient Jewish oral or unwritten law and traditions. It was compiled by the scribes, between the sixth and third centuries B. C.

¹⁰ Rabbin'ical prayer-book, a prayer-book in the later Hebrew tongue, prepared after the Christian era by the Jewish doctors, or Rabbins.

¹¹ Sheikh, a man of eminence and position amongst the Arabs; *lit.* a venerable old man, or chief.

¹² Ko'ran, the sacred book of the Mohammedans; written by Mohammed, with the aid of two or three associates, in 610, and declared by him to have been revealed to him by the angel Gabriel during twenty-three years.

¹³ Alexan'drian Library.—The great library of Alexandria (Egypt) was burned by the Caliph Omar in 640 A. D. The saying here ascribed to him is denied by Mohammedans. The MSS. in the library supplied the public baths of Alexandria with fuel for six months!

¹⁴ The Turks.—Greece was subject to the Turks from 1540 till 1822, when the Greeks rose in arms and proclaimed their independence. After a five-years' struggle they succeeded in securing it, and it was guaranteed by the Treaty of London, to which Great Britain, Russia, and France were parties, in 1827.

QUESTIONS.—Of what public buildings are eastern cities generally destitute? Why are there few prisons in the East? What is the object of their penal system? How do they attain it? Describe the appearance of a Damascus coffee-house. What is a khan? What are the children taught in the schools? How is the absence of newspapers to be explained? How do women go about in Damascus? In comparing two streets, one in London, the other in Damascus, what three points of difference would be most noticeable?

BATTLE OF TRAFALGAR,¹ AND DEATH OF NELSON.

October 21, 1805.

PART I.

EARLY on the morning of September 14th, Nelson^(b) reached Portsmouth, and having despatched his business on shore, endeavoured to elude the populace by taking a by-way to the beach; but a crowd collected in his train, pressing forward to obtain a sight of his face. Many were in tears, and many knelt before him and blessed him as he passed.

England has had many heroes, but never one who so entirely possessed the love of his fellow-countrymen as Nelson. All men knew that his heart was as humane as it was fearless; that there was not in his nature the slightest alloy of selfishness

or cupidity, but that, with perfect and entire devotion, he served his country with all his heart, and with all his soul, and with all his strength: and therefore they loved him as truly and as fervently as he loved England.

They pressed upon the parapet to gaze after him when his barge pushed off; and he returned their cheers by waving his hat. The sentinels, who endeavoured to prevent them from trespassing upon this ground, were wedged among the crowd; and an officer, who (not very prudently, upon such an occasion) ordered them to drive the people down with their bayonets, was compelled speedily to retreat; for the people would not be debarred from gazing till the last moment upon the hero—the darling hero of England!.....

At daybreak, the combined fleets were distinctly seen from the *Victory's* deck, formed in a close line of battle ahead, on the starboard⁵ tack, about twelve miles to leeward,⁴ and standing to the south. Our fleet consisted of twenty-seven sail of the line and four frigates; theirs, of thirty-three and seven large frigates. Their superiority was greater in size and weight of metal than in numbers. They had four thousand troops on board; and the best riflemen that could be procured, many of them Tyrolese,² were dispersed over the ships.

Soon after daylight Nelson came upon deck. The 21st of October was a festival in his family, because on that day his uncle, Captain Suckling,³ in the *Dreadnought*, with two other line-of-battle ships, had beaten off a French squadron of four sail of the line and three frigates. Nelson, with that sort of superstition from which few persons are entirely exempt, had more than once expressed his persuasion that this was to be the day of his battle also; and he was well pleased at seeing his prediction about to be verified.

The wind was now from the west,—light breezes, with a long, heavy swell. Signal was made to bear down upon the enemy in two lines; and the fleet set all sail. Collingwood,⁽⁶⁾ in the *Royal Sovereign*, led the lee line⁴ of thirteen ships; the *Victory* led the weather line, of fourteen. Having seen that all was as it should be, Nelson retired to his cabin, and wrote the following prayer:—

“May the great God, whom I worship, grant to my country, and for the benefit of Europe in general, a great and glorious victory; and may no misconduct in any one tarnish it; and may humanity after victory be the predominant feature in the British fleet! For myself individually, I commit my life to Him that made me; and may His blessing alight on my en-

deavours for serving my country faithfully. To Him I resign myself, and the just cause which is intrusted to me to defend. Amen, amen, amen."

Blackwood went on board the *Victory* about six. Nelson, certain of a 'triumphant issue to the day, asked him what he should consider as a victory. The officer answered, that, considering the handsome way in which battle was offered by the enemy, their apparent 'determination for a fair trial of strength, and the situation of the land, he thought it would be a glorious result if fourteen were captured. He replied, "I shall not be satisfied with fewer than twenty!"

Soon afterwards he asked him if he did not think there was a signal wanting. Captain Blackwood made answer, that he thought the whole fleet seemed very clearly to 'understand what they were about. These words were scarcely spoken before that signal was made which will be remembered as long as the language, or even the memory of England, shall endure—Nelson's last signal: "ENGLAND EXPECTS EVERY MAN TO DO HIS DUTY!" It was received throughout the fleet with a shout of answering acclamation, made sublime by the spirit which it breathed and the feeling which it expressed. "Now," said Lord Nelson, "I can do no more. We must trust to the Great Disposer of all events, and the justice of our cause. I thank God for this great opportunity of doing my duty."

He wore that day, as usual, his admiral's frock-coat, bearing on the left breast four stars of the different orders with which he was 'invested. Ornaments which rendered him so 'conspicuous a mark for the enemy, were beheld with 'ominous 'apprehensions by his officers. It was known that there were riflemen on board the French ships, and it could not be doubted that his life would be particularly aimed at.

They 'communicated their fears to each other; and the surgeon, Mr. Beatty, spoke to the chaplain, Dr. Scott, and to Mr. Scott the public secretary, desiring that some person would 'entreat him to change his dress, or cover the stars; but they knew that such a request would highly displease him. "In honour I gained them," he had said when such a thing had been hinted to him formerly, "and in honour I will die with them."

Nelson's column was steered about two points more to the north than Collingwood's, in order to cut off the enemy's escape into Cadiz; the lee line, therefore, was first 'engaged. "See!" cried Nelson, pointing to the *Royal Sovereign*, as she steered right for the centre of the enemy's line, cut through it astern of

the *Santa Anna* three-decker, and engaged her at the muzzle of her guns on the starboard side,⁵ "see how that noble fellow, Collingwood, carries his ship into action!" Collingwood, delighted at being first in the heat of the fire, and knowing the feelings of his commander and old friend, turned to his captain and exclaimed, "Rotherham,⁶ what would Nelson give to be here!"

The enemy continued to fire one gun at a time at the *Victory*, till they saw that a shot had passed through her main-top-gallant sail; then they opened their broadsides, aiming chiefly at her rigging, in the hope of disabling her before she could close with them. Nelson, as usual, had hoisted several flags, lest one should be shot away. The enemy showed no colours till late in the action, when they began to feel the necessity of having them to strike! For this reason the *Santissima Trinidad*, Nelson's old acquaintance, as he used to call her, was distinguishable only by her four decks; and to the bow of this opponent he ordered the *Victory* to be steered.

Meantime an incessant raking fire was kept up upon the *Victory*. The Admiral's secretary was one of the first who fell: he was killed by a cannon-shot while conversing with Hardy.⁷ Captain Adair of the marines, with the help of a sailor, endeavoured to remove the body from Nelson's sight, who had a great regard for Mr. Scott; but he anxiously asked, "Is that poor Scott that's gone?" and being informed that it was indeed so, exclaimed, "Poor fellow!" Presently a double-headed shot struck a party of marines, who were drawn up on the poop,⁸ and killed eight of them; upon which Nelson immediately desired Captain Adair to disperse his men round the ship, that they might not suffer so much from being together.

A few minutes afterwards, a shot struck the fore-brace bits⁹ on the quarter-deck, and passed between Nelson and Hardy, a splinter from the bit tearing off Hardy's buckle and bruising his foot. Both stopped, and looked anxiously at each other; each supposed the other to be wounded. Nelson then smiled and said, "This is too warm work, Hardy, to last long."

The *Victory* had not yet returned a single gun; fifty of her men had been by this time killed or wounded, and her main-top-mast shot away, with all her studding-sails¹⁰ and her booms.¹¹ Nelson declared that in all his battles he had seen nothing which surpassed the cool courage of his crew on this occasion. At four minutes after twelve she opened her fire from both sides of her deck.

It was not possible to break the enemy's line without running

on board one of their ships. Hardy informed him of this, and asked him which he would prefer. Nelson replied, "Take your choice, Hardy; it does not signify much." The master was ordered to put the helm to port,¹² and the *Victory* ran on board the *Redoubtable*, just as her tiller-ropes¹³ were shot away. The French ship received her with a broadside, then instantly let down her lower deck ports, for fear of being boarded through them, and never afterwards fired a great gun during the action.

SOUTHEY.⁽⁴⁾

anx'iously, concern'edly.
apprehensions, fears.
bay onets, spears or swords
fixed on guns.
commu'nicated, conveyed'.
conspic'uous, prom'inent.
declared', assert'ed.
despatched', concl'ud'ed.
determina'tion, resolu-
tion.
dispersed', scat'tered.

distin'guishable, recog-
niz'able.
engaged', in action.
entire'ly, complete'ly.
entreat', beseech'.
exempt', free.
fer'vently, warm'ly.
humane', merciful.
inces'sant, unceas'ing.
invest'ed, dec'orated.
neces'sity, need.

om'inous, bod'ing evil.
persua'sion, convic'tion.
predic'tion, proph'ecy.
predom'inant, over-rul'ing.
pru'dently, discreet'ly.
splin'ter, chip.
superior'ity, ascen'dency.
surpassed', excelled'.
tar'nish, sull'y.
triumph'ant, victo'rious.
understand', comprehend'.

¹ Battle of Trafalgar. (See OUTLINES OF HISTORY, Nelson's School Series; and Map on page 15.)

² Tyrolese, natives of the Tyrol, an Alpine province of Austria, and famous as marksmen with the rifle before it became the usual military small arm. The Tyrol was conquered by France in 1805, and annexed to Bavaria; but it revolted in 1809, and was restored to Austria at the peace.

³ Captain Suckling, Nelson's maternal uncle, on board of whose ship he had first entered the service, in his twelfth year.

⁴ The lee line, the line on the side opposite to that from which the wind blows; in this case the line nearest the land. The other side—that nearest the wind—is called the weather line.

⁵ The starboard side, the side on the right hand of the steersman. The left hand side is the larboard (lower-board) or port.

⁶ Collingwood and Rotherham. — "Both these brave officers, perhaps, at this moment thought of Nelson with gratitude for a circumstance which had occurred on the preceding day. Admiral Collingwood, with some of the captains, having gone on

board the *Victory* to receive instructions, Nelson inquired of him where his captain was, and was told in reply that they were not upon good terms with each other. 'Terms!' said Nelson; 'good terms with each other!' Immediately he sent a boat for Captain Rotherham; led him, as soon as he arrived, to Collingwood, and saying, 'Look, yonder are the enemy!' bade them shake hands like Englishmen."—*Southey*.
⁷ Hardy (afterwards Sir Thomas), Nelson's flag-captain on board the *Victory*. He died in 1839.

⁸ The poop, a raised part of the deck towards the stern.

⁹ The brace bits, two upright pins or pieces of timber round which the braces (yard-arm ropes) are fastened.

¹⁰ Studding-sails, sails set outside of principal or square sails.

¹¹ Booms, long poles or beams, used to extend the bottom of sails.

¹² To port, to the left hand side. (See 5.)

¹³ Tiller-ropes.—The tiller is the bar or lever used to turn the rudder; and the tiller-ropes connect the tiller with the steering-wheel.

QUESTIONS.—What was peculiar in the feeling of Englishmen towards Nelson? How was this shown at his last departure? What presentiment had Nelson regarding the day of the battle? Who commanded the lee line? What did Nelson do when all was ready? What was his last signal? How did Nelson make himself conspicuous? Why did none of his officers request him to avoid this? Who began the attack? To what vessel did Nelson order the *Victory* to be steered? How had she suffered before she opened her guns? Why was the *Redoubtable* attacked? With what effect?

YE MARINERS OF ENGLAND.

Ye 'mariners of England !
 That guard our native seas,
 Whose flag has braved a thousand years
 The battle and the breeze,
 Your 'glorious 'standard lauch again,
 To match another foe,
 An' sweep through the deep
 While the 'stormy winds do blow ;
 While the battle rages loud and long,
 And the stormy winds do blow.

The spirits of your 'fathers
 Shall start from every wave !
 For the deck it was their field of fame,
 And Ocean was their grave :
 Where Blake^(b) and mighty Nelson^(b) fell
 Your manly hearts shall glow,
 As ye sweep through the deep
 While the stormy winds do blow ;
 While the battle rages loud and long,
 And the stormy winds do blow.

Britannia needs no 'bulwarks,
 No towers along the steep ;
 Her march is o'er the mountain waves,
 Her home is on the deep :
 With thunders from her native oak
 She 'quells the floods below,
 As they roar on the shore
 When the stormy winds do blow ;
 When the battle rages loud and long,
 And the stormy winds do blow.

The meteor-flag of England
 Shall yet 'terrific burn,
 Till danger's 'troubled night depart,
 And the star of peace return.
 Then, then, ye ocean-warriors !
 Our song and feast shall flow
 To the fame of your name,
 When the storm has ceased to blow ;
 When the fiery fight is heard no more,
 And the storm has ceased to blow.

THOMAS CAMPBELL. ^(b)

bul'warks, ram'parts
 fa'thers, an'cestors.
 glo'rious, renowned'.

mar'iners, o'cean-war'riors
 quells, calms.
 stand'ard, col'ours

storm'y, bois'terous
 terrif'ic, for'midable.
 troub'led, disturbed'.

BATTLE OF TRAFALGAR, AND DEATH OF NELSON.

PART II.

It had been part of Nelson's prayer that the British fleet might be distinguished by humanity in the victory which he expected. Setting an example himself, he twice gave orders to cease firing on the *Redoubtable*, supposing that she had struck because her guns were silent; for, as she carried no flag, there was no means of instantly ascertaining the fact. From this ship, which he had thus twice spared, he received his death. A ball fired from her mizzen-top,¹ which, in the then situation of the two vessels, was not more than fifteen yards from that part of the deck where he was standing, struck the epaulet on his left shoulder, about a quarter after one, just in the heat of the action. He fell upon his face on the spot which was covered with his poor secretary's blood.

Hardy, who was a few steps from him, turning round, saw three men raising him up. "They have done for me at last, Hardy," said he. "I hope not," cried Hardy. "Yes," he replied; "my back-bone is shot through." Yet even now, not for a moment losing his presence of mind, he observed, as they were carrying him down the ladder, that the tiller-ropes, which had been shot away, were not yet replaced, and ordered that new ones should be rove² immediately; then, that he might not be seen by the crew, he took out his handkerchief and covered his face and his stars! Had he but concealed those badges of honour from the enemy, England, perhaps, would not have had cause to receive with sorrow the news of the Battle of Trafalgar.

The cockpit³ was crowded with wounded and dying men, over whose bodies he was with some difficulty conveyed, and laid upon a pallet in the midshipmen's berth. It was soon perceived, upon examination, that the wound was mortal. This, however, was concealed from all except Captain Hardy, the chaplain, and the medical attendants. He himself being certain, from the sensation in his back, and the gush of blood he felt momentarily within his breast, that no human care could avail him, insisted that the surgeon should leave him and attend to those to whom he might be useful; "for," said he, "you can do nothing for me." All that could be done was to fan him with paper, and frequently to give him lemonade to alleviate his intense thirst.

He was in great pain, and expressed much anxiety for the event of the action, which now began to declare itself. As often as a ship struck, the crew of the *Victory* hurrahed; and at each hurrah a visible expression of joy gleamed in the eyes and marked the countenance of the dying hero. But he became impatient to see Hardy; and as that officer, though often sent for, could not leave the deck, Nelson feared that some fatal cause prevented him, and repeatedly cried, "Will no one bring Hardy to me? He must be killed! he is surely dead!"

An hour and ten minutes elapsed from the time when Nelson received his wound, before Hardy could come to him. They shook hands in silence, Hardy in vain struggling to suppress the feelings of that most painful and yet sublime moment. "Well, Hardy," said Nelson, "how goes the day with us?" "Very well," replied Hardy: "ten ships have struck; but five of the van have tacked, and show an intention to bear down upon the *Victory*. I have called two or three of our fresh ships round, and have no doubt of giving them a drubbing."—"I hope," said Nelson, "none of our ships have struck?" Hardy answered, "There is no fear of that."

Then, and not till then, Nelson spoke of himself. "I am a dead man, Hardy," said he. "I am going fast; it will be all over with me soon." Hardy observed that he hoped Mr. Beatty could yet hold out some prospect of life. "Oh, no," he replied; "it is impossible. My back is shot through. Beatty will tell you so." Hardy then once more shook hands with him, and with a heart almost bursting, hastened upon deck.

By this time all feeling below the breast was gone, and Nelson having made the surgeon ascertain this, said to him, "You know I am gone. I know it. I feel something rising in my breast," putting his hand on his left side, "which tells me so." When Beatty inquired whether his pain was very great, he replied, "So great, that I wish I were dead. Yet," he added, in a lower voice, "one would like to live a little longer too!"

Captain Hardy, some fifty minutes after he had left the cockpit, returned, and again taking the hand of his dying friend and commander, congratulated him on having gained a complete victory. How many of the enemy were taken he did not know, as it was impossible to perceive them distinctly, but fourteen or fifteen at least. "That's well," said Nelson; "but I bargained for twenty." And then, in a stronger voice, he said, "Anchor, Hardy, anchor." Hardy thereupon hinted that Admiral Collingwood^(b) would take upon himself the direction of affairs. "Not

while I live, Hardy," said the dying Nelson, 'ineffectually endeavouring to raise himself from the bed ; "do you anchor." His previous orders for preparing to anchor had shown how clearly he foresaw the necessity of this.

Presently calling Hardy back, he said to him in a low voice, "Don't throw me overboard ;" and he desired that he might be buried beside his parents, unless it should please the King⁴ to order otherwise. Then 'reverting to private feelings,— "Kiss me, Hardy," said he. Hardy knelt down and kissed his cheek ; and Nelson said, "Now I am 'satisfied. Thank God, I have done my duty !" Hardy stood over him in silence for a moment or two, then knelt again and kissed his forehead. "Who is that?" said Nelson ; and being informed, he replied, "God bless you, Hardy." And Hardy then left him for ever.

Nelson now desired to be turned upon his right side, and said, "I wish I had not left the deck, for I shall soon be gone." Death was, indeed, rapidly approaching. His 'articulation became difficult, but he was distinctly heard to say, "Thank God, I have done my duty !" These words he repeatedly pronounced, and they were the last words which he uttered. He expired at thirty minutes after four, three hours and a quarter after he had received his wound.

Within quarter of an hour after Nelson was wounded, above fifty of the *Victory's* men fell by the enemy's 'musketry. They, however, on their part were not idle ; and it was not long before there were only two Frenchmen left alive in the mizzen-top of the *Redoubtable*. One of them was the man who had given the fatal wound. He did not live to boast of what he had done. An old quartermaster had seen him fire, and easily 'recognized him, because he wore a glazed cocked hat and a white frock. This quartermaster and two midshipmen, Mr. Collingwood and Mr. Pollard, were the only persons left in the *Victory's* poop. The two midshipmen kept firing at the top, and he supplied them with cartridges.

One of the Frenchmen, attempting to make his escape down the rigging, was shot by Mr. Pollard, and fell on the poop. But the old quartermaster, as he called out, "That's he—that's he," and pointed to the other, who was coming forward to fire again, received a shot in his mouth, and fell dead. Both the midshipmen then fired at the same time, and the fellow dropped in the top. When they took possession of the prize, they went into the mizzen-top and found him dead, with one ball through his head and another through his breast.

The total British loss in the Battle of Trafalgar amounted to one thousand five hundred and eighty-seven men. Twenty of the enemy's ships struck, but it was not possible to anchor the fleet, as Nelson had enjoined. A gale came on from the south-west: some of the prizes went down, some went on shore; one effected its escape into Cadiz, others were destroyed; four only were saved, and those by the greatest exertions.

The death of Nelson was felt in England as something more than a public calamity: men started at the intelligence, and turned pale, as if they had heard of the loss of a dear friend. An object of our admiration and affection, of our pride and of our hopes, was suddenly taken from us; and it seemed as if we had never till then known how deeply we loved and revered him. What the country had lost in its great naval hero—the greatest of our own and of all former times—was scarcely taken into the account of grief.

So perfectly, indeed, had he performed his part, that the maritime war, after the Battle of Trafalgar, was considered at an end. The fleets of the enemy were not merely defeated—they were destroyed: new navies must be built, and a new race of seamen reared for them, before the possibility of their invading our shores⁵ could again be contemplated.

It was not, therefore, from any selfish reflection upon the magnitude of our loss that we mourned for him: the general sorrow was of a higher character. The people of England grieved that funeral ceremonies, and public monuments, and posthumous rewards, were all that they could now bestow upon him whom the King, the Legislature, and the Nation would have alike delighted to honour; whom every tongue would have blessed—whose presence in every village through which he might have passed would have awakened the church bells, have given schoolboys a holiday, have drawn children from their sports to gaze upon him, and “old men from the chimney corner” to look upon Nelson ere they died.

The victory of Trafalgar was celebrated, indeed, with the usual forms of rejoicing, but they were without joy; for such already was the glory of the British Navy, through Nelson's surpassing genius, that it scarcely seemed to receive any addition from the most signal victory that ever was achieved upon the seas. The destruction of this mighty fleet, by which all the maritime schemes of France were totally frustrated, hardly appeared to add to our security or strength; for while Nelson was alive to watch the combined squadrons of the enemy, we

felt ourselves as secure as now when they were no longer in existence.

The most triumphant death is that of the martyr; the most awful, that of the martyred patriot; the most splendid, that of the hero in the hour of victory; and if the chariot and the horses of fire⁶ had been vouchsafed for Nelson's translation, he could scarcely have departed in a brighter blaze of glory. He has left us, not, indeed, a mantle of inspiration, but a name and an example which are at this hour inspiring thousands of the youth of England—a name which is our pride, and an example which will continue to be our shield and our strength. Thus it is that the spirits of the great and the wise continue to live and to act after them.

SOUTHEY.^(b)

achieved', gained.
alle'viate, assuage'.
articula'tion, ut'terance
ascertain'ing, deter'min-
ing.
calam'ity, disas'ter.
cele'brated, sig'nalized.
congrat'ulated, compli-
ment'ed.
contem'plated, med'itated.
conveyed', carried.
disting'uishd, char'acter-
ized.

elapsed', transpired'.
enjoined', advised'.
ep'aulet, shoul'der-badge.
expect'ed, anti'cipated.
frus'trated, baff'led.
hand'-kerchief, a cloth of
silk or linen.
has'tened, hur'ried.
impa'tient, ea'ger.
ineffec'tually, unsucces's-
fully.
inspira'tion, divine in'flu-
ence.

intel'ligence, news.
leg'islature, parli'ament.
mo'mently, contin'ually.
mus'ketry, small guns.
prevent'ed, detain'ed'.
pros'pect, hope.
rec'ognized, iden'tified.
replac'ed, renew'ed'.
rev'ereced, rever'ed'.
revert'ing, return'ing.
sat'isfied, conten'ted'.
sublime', grand.
vouchsafed', grant'ed.

¹ **Mizzen-top**, a platform at the top of the lower mizzen-mast—the aftermost mast in a ship.

² **Rove**, drawn through the blocks so as to connect the rudder with the steering-wheel. To *reeve* a rope, is to pass it through any block or ring-bolt. It is probably connected with *reef*, to reduce a sail—which is done by passing the *reef-points* or ropes through eyelets. The word *reef* properly belongs to the row of short ropes themselves, which, as they hang on the sail, have the appearance of the teeth of a rake or comb. *Reef*, as applied to a ridge of rocks, embodies the same idea.

³ **The cockpit**, a room under the lower gun-deck, in which the wounded are dressed.

⁴ **Unless it should please the King.**—

He was buried in St. Paul's Cathedral, on 9th January 1806.

⁵ **Invading our shores.**—Napoleon's plans for striking a swift and deadly blow at England, had been completed before the end of 1804. A great army—"the Army of England"—had been assembled at Boulogne; but it was necessary to **have command** of the Channel before this **host could** be transferred across it. With this **view**, he had ordered the combined fleets of France and Spain to sweep the Channel; but their complete destruction at Trafalgar frustrated Napoleon's design, and the "Army of England" was at once marched against Austria.

⁶ **The chariot and the horses of fire.**—A reference to the translation of the prophet Elijah, as described in 2 Kings ii. 11.

QUESTIONS.—How did Nelson give an example of humanity? How was this ill requited? Where was Nelson struck? Why did he tell the surgeon to attend to the others in the cockpit? Whom did he become impatient to see? What news of the battle did Hardy bring him? What wishes did he express regarding his burial? What were his last words? What was the fate of the man who had shot him? How many of the enemy's ships struck? What was the great result of the victory? Why was it celebrated without joy?

EDINBURGH AFTER FLODDEN.

News of battle ! news of battle !—

Hark ! 'tis ringing down the street :

And the archways and the pavement

Bear the clang of 'hurrying feet.

News of battle ! who hath brought it ?

News of triumph ! who should bring

'Tidings from our noble army,

'Greetings from our gallant King ?¹

All last night we watched the beacons²

Blazing on the hills afar,

Each one bearing, as it kindled,

Message of the opened war.

All night long the northern streamers³

Shot across the 'trembling sky :

Fearful lights, that never beacon

Save when kings or heroes die.

News of battle ! who hath brought it ?

All are 'thronging to the gate ;—

"Warder, warder ! open quickly !

Man—is this a time to wait ?"

And the heavy gates are opened :

Then a murmur long and loud,

And a cry of fear and wonder

Bursts from out the bending crowd.

For they see in 'battered 'harness

Only one hard-stricken man ;

And his weary steed is wounded,

And his cheek is pale and wan :

Spearless hangs a bloody banner

In his weak and drooping hand—

What ! can that be Randolph Murray,

Captain of the city band ?⁴

Round him crush the people, crying,

"Tell us all—oh, tell us true !

Where are they who went to battle,

Randolph Murray, sworn to you ?

Where are they, our brothers—children ?

Have they met the English foe ?

Why art thou alone, 'unfollowed ?—

Is it weal, or is it woe ?"

Like a corpse the 'grisly warrior

Looks from out his helm of steel ;

But no word he speaks in answer—

Only with his arm'd heel

Chides his weary steed, and onward
 Up the city streets they ride ;
 Fathers, sisters, mothers, children,
 'Shrieking, praying by his side.
 "By the God that made thee, Randolph !
 Tell us what 'mischance hath come."
 Then he lifts his 'riven banner,
 And the asker's voice is dumb.

The elders of the city
 Have met within their hall—
 The men whom good King James had charged
 To watch the tower and wall.
 "Your hands are weak with age," he said,
 "Your hearts are stout and true ;
 So bide ye in the Maiden Town,
 While others fight for you.
 And if, instead of Scottish shouts,
 Ye hear the English drum,.....
 Then let the warning bells ring out,
 Then gird you to the fray,
 Then man the walls like burghers stout,
 And fight while fight you may.
 'Twere better that in fiery flame
 The roof should thunder down,
 Than that the foot of foreign foe
 Should trample in the town !"

Then in came Randolph Murray,—
 His step was slow and weak ;
 And, as he 'doffed his dinted helm,
 The tears ran down his cheek :
 They fell upon his 'corselet,
 And on his mailed hand,
 As he gazed around him 'wistfully,
 Leaning sorely on his brand.
 And none who then beheld him
 But 'straight were smote with fear,
 For a bolder and a sterner man
 Had never 'couched a spear.
 They knew so sad a messenger
 Some ghastly news must bring ;
 And all of them were fathers,
 And their sons were with the King.

And up then rose the Provost⁶—
 A brave old man was he,
 Of ancient name, and knightly fame,
 And 'chivalrous degree.....

Oh, woful now was the old man's look,
 And he spake right heavily—
 "Now, Randolph, tell thy 'tidings,
 However sharp they be!
 Woe is written on thy 'visage,
 Death is looking from thy face:
 Speak!—though it be of 'overthrow,
 It cannot be 'disgrace!"

Right bitter was the 'agony
 That wrung that soldier proud:
 Thrice did he strive to answer,
 And thrice he groaned aloud.
 Then he gave the 'riven banner
 To the old man's shaking hand,
 Saying—"That is all I bring ye
 From the bravest of the land!
 Ay! ye may look upon it—
 It was guarded well and long,
 By your brothers and your children,
 By the 'valiant and the strong.
 One by one they fell around it,
 As the archers laid them low,
 Grimly dying, still 'unconquered,
 With their faces to the foe.
 Ay! well ye may look upon it—
 There is more than honour there,
 Else, be sure, I had not brought it
 From the field of dark despair
 Never yet was royal banner
 Steeped in such a costly dye;—
 It hath lain upon a bosom
 Where no other shroud shall lie.
 Sirs! I charge you, keep it holy,
 Keep it as a sacred thing,
 For the stain ye see upon it
 Was—the life-blood of your King!"

Woe, woe and 'lamentation!
 What a 'piteous cry was there!
 'Widows, maidens, mothers, children,
 Shrieking, sobbing in despair!.....
 "O the blackest day for Scotland
 That she ever knew before!
 O our King! the good, the noble,
 Shall we see him never more?
 Woe to us, and woe to Scotland!—
 O our sons, our sons and men!
 Surely some have 'scaped the Southron,
 Surely some will come again!"—

Till the oak that fell last winter
 Shall uprear its 'shattered stem,
 Wives and mothers of Dunedin,⁶
 Ye may look in vain for them !

W. E. AYTOUN.^(b)

ag'ony, aff'guls'h.
 bat'tered, dint'ed.
 chiv'alrous, hero'ic.
 corse'let, breast'-plate.
 couched, put in rest.
 disgrace', shame.
 doffed, put off.
 greet'ings, saluta'tions
 gris'ly, fright'ful.

har'ness, ar'mour.
 hur'rying, has'tening.
 lamenta'tion, wail'ing.
 mischance', calam'ity.
 ov'erthrow, defeat'.
 pit'eous, mourn'ful.
 riv'en, rent; torn.
 shat'tered, shiv'ered.
 shriek'ing, scream'ing.

straight, imme'diately.
 throng'ing, crowd'ing.
 tid'ings, news
 trem'bling, quiv'ering.
 uncon'quered, unsubdued'
 unfol'lowed, unattend'ed.
 val'iant, brave.
 vis'age, coun'tenance.
 wist'fully, ear'nestly.

¹ Our gallant King.—James IV. succeeded to the Scottish throne in 1488. In 1503 he married Margaret, daughter of Henry VII. of England—an alliance which afterwards led to the union of the English and Scottish crowns in 1603. During the life-time of his father-in-law, James continued on good terms with the English government; but the imperious character of Henry VIII. made it difficult for a prince of James's spirit to maintain the same pacific relations even with his brother-in-law. When Henry engaged in war with France, James eagerly espoused the cause of the latter; and at the solicitation it is said of the fair Queen of France, invaded England with an army of 50,000 men. He encamped on the hill of Flodden. The Earl of Surrey marched against him with an English army. James foolishly allowed the English force to cross the Till in his front, and march between him and Scotland without attacking it. This fatal blunder lost him the day. The bravest and noblest of the Scots formed a ring around the King, and he and they were hewn down as they stood. 1513 A.D.

² The beacons.—Signals were most conveniently telegraphed in olden times by means of beacon-fires kindled on hill-tops and on lofty buildings. In Lord Macaulay's historical lay, *The Armada*, there is a graphic description of how the news of the approach of the Spanish fleet was conveyed by signal-fires from the south to the north of England in a few hours. The "warning radiance" first shone on St. Michael's Mount in Cornwall, and it

passed from peak to peak, and from tower to tower,—

"Till Skiddaw saw the fire that burned on Gaunt's embattled pile."

And the red glare on Skiddaw roused the burghers of Carlisle."

³ The northern streamers.—The *auroora borealis*. (See p. 110, and p. 113, Note 2) The superstition that unusual appearances in the heavens foretold the death of great men is expressed by Shakespeare in *Julius Cæsar*, Act ii, Scene 2:—

"When beggars die, there are no comets seen :

The heavens themselves blaze forth the death of princes."

⁴ The city band.—Before the days of standing armies, each town maintained a train-band, or company of militia, for its own defence. These men were placed at the King's disposal in time of war.

⁵ The Provost—the chief magistrate; a title corresponding with the English mayor. Both titles are of French origin: *provost* from Fr *prévôt*, or *prevost*, which is from Lat. *præpositus*, placed before or over; *mayor* from Fr *maire*, which is from Lat. *major*, greater

⁶ Duné'din.—An old name of Edinburgh, strictly of its castle. *Dun* is a Celtic word meaning a hill or fort; *Dun-Edin*, the hill or fort of Edwin (King of Northumbria, 617 A.D.). The suffix *burgh*, meaning latterly a corporate town or borough, meant originally a fortress. It is the Teutonic *burg*, a fortress, from O. Eng. *beorgan*, to protect. Hence *Dun-Edin* and *Edin-burgh* have the same meaning.

ROUND THE WORLD—OVERLAND.

*To be read before a Map of the World.**

A VOYAGE round the world can be made only by means of the Southern Seas.¹ A vessel from England, to 'accomplish this, may sail down the Atlantic to the Cape of Good Hope, cross the Indian Ocean to Australia and New Zealand, cross the South Pacific to Cape Horn, and then sail up the Atlantic to England again. This voyage is generally 'prolonged by numerous stoppages and unforeseen delays, so that it often occupies the greater part of a year; but there is now a great overland route, by which the journey round the globe may be performed in considerably less than three months.

Our starting-point for this extensive tour is Liverpool, the great commercial capital of England. The rapid progress of this city is one of the marvels of the nineteenth century. In 1701 it was an 'insignificant little sea-port with 8000 inhabitants. In 1801 its population had increased to 77,000, and it is now close upon half a million! It is the second city in the British Empire, and, as a commercial port, has no equal in the world. Its docks cover seven hundred acres; and its wharfage, or quay space, extends to seventeen miles.

Leaving Liverpool by one of the famous 'transatlantic "lines" of steamers,—the Cunard, the Inman, or the Guion line,—in nine days we reach New York, the Liverpool of the West. This city is built on an island, twenty-two square miles in area, at the mouth of the Hudson river. Its outline forms a broken triangle, and for the most part it consists of handsome and regular 'thoroughfares, the chief of which—Broadway—intersects the city, and is nearly four miles in length.

New York is the eastern terminus of the Atlantic and Pacific Railway,² as San Francisco is the western; and between these two cities a great overland journey of 3215 miles may be performed in 154 hours, or about six days and a half. This 'gigantic line of railway carries the traveller through every variety of scenery, and the most diverse zones of vegetation, and brings him in contact with nearly every grade of 'civilization. It takes him through highly-cultivated agricultural districts, wooded bluffs, and rolling prairies; through gravelly deserts and rocky passes; through valleys rich in pasture, orchards, vineyards, gardens, and

* As reading from a newspaper or other modern narrative is of the greatest importance in the present day, this lesson and those on *The Overland Route* and *Great Ocean Routes* have been specially prepared to afford the necessary practice

nurseries. As the line rounds some lofty promontory, or spans some deep gorge, he may see a group of Red Indians, clad in skins and crested with feathers, watching with wondering interest the progress of the iron horse. The line crosses the Rocky Mountains at an elevation of 8242 feet above the level of the sea—the highest point,³ without exception, which the locomotive has yet reached. In this and other elevated regions the line is protected by massive snow-sheds, built of the strongest timber. These, along with the tunnels by which the rocks are pierced, make the line appear to be tunnel and nothing else for many miles at a time.

The line consists of four great sections: first, from New York to Chicago; second, from Chicago to Omaha; third, from Omaha to Ogden; and fourth, from Ogden to San Francisco.

Chicago, on Lake Michigan, the commercial centre of the Western States, is reached from New York by any of the trunk lines through the States in thirty hours. This city is the most striking example which even the West can afford of marvelously rapid growth. In 1831 it was but an Indian trading-post. In 1840, its population was only 5000. It had grown, in a single generation, to a city of 300,000 inhabitants, and to the position of the greatest timber and grain mart in the world, when, in 1871, a fire, more rapid and destructive than that of Moscow, laid one-third of the city in ruins.

From Chicago to Omaha is a stretch of five hundred miles, through thriving villages and growing towns, in the midst of coal-fields and corn-fields which are fast encroaching on the prairie land. The most considerable town on the route is Burlington, on the Mississippi river, which gives its name to this section of the line.

Omaha is on the western bank of the Missouri river. The proper terminus of the Burlington section, however, is at Council Bluffs,⁴ four miles distant, on the eastern side of the river. Omaha is another instance of the remarkable progress of American cities. Its origin dates only from 1854, yet it has now a population of 25,000. It is a great railway junction, northern and southern, as well as eastern and western trunk lines meeting there; and it bids fair to become, ere long, the chief inland city of the Western States.

West of Omaha is the valley of the Platte river, and the great prairie region. What are these prairies? Leagues upon leagues of undulating meadow-land, sometimes as level as a verdant pasture—sometimes broken up by considerable ridges

or valleys—nearly always, to the eye, as boundless as the sea. Almost the entire area—we are here speaking in general terms—is covered with long rank grass of tender green, and lighted up by flowers, which charm with their beauty and fill the air with fragrance. Occasionally, the more monotonous breadths of the grassy plain are relieved by the ripple of a brook; and animation is given to the landscape by the frequent appearance of herds of bison, deer, and antelopes. At times, in the remote districts, the prairie wolves may be observed in their leafy coverts on the watch for prey; or flights of birds darken the air, and tempt the traveller with the promise of abundant provision. The distances are sometimes varied by blue mounds, sometimes broken by rugged bluffs. At intervals we come upon barren tracts of sand, covered with the settlements of the prairie-dog.⁵ Yet everything—whether grassy plain, or sandy desert, or distant promontory—contributes to the idea of vastness, which is the overpowering feature of the prairies. Over all there is a sparkling atmosphere and a cloudless sky, while the hottest season is tempered by the never-failing breeze.

Another noticeable characteristic of these plains is, that they receive millions of human inhabitants, and yet are always waiting for more. They have room for all the teeming hosts that have poured in, or could pour in, from the great plains of Asia and the overstocked cities of Central Europe. Twice as large as Hindostan, more temperate, more habitable, Nature has placed them here, hedgeless, gateless, free to all—a green field for the support of half the human race, unclaimed, untouched, and offering a smiling welcome both to busy hands and to the civilizing plough.

Leaving the prairie level behind, the train begins to scale the heights and thread the passes of the Rocky Mountains.⁶ The highest station on the line, to which we have already referred, is about half way between Omaha and Ogden, and is named "Sherman," after the great American general. For the next five hundred miles the line continues at a mean level of 6500 feet above the sea.

Within forty miles of Ogden it enters Echo Creek,⁷ one of the most picturesque scenes on the whole route. It is a deep, rocky, and rugged ravine, some seven miles in length, and from half to three-quarters of a mile in width at its head. On the right hand it is flanked by bold, precipitous, and buttressed cliffs, from 300 to 800 feet high, denuded and water-worn by the storms which beat against them during the southerly gales. The

opposite side, sheltered from furious winds and driving rain, is formed by a succession of swelling hills, or sloping masses of rock, profusely clothed with mossy herbage. In the hollow between them rolls a bright transparent stream, which, incessantly at work, has excavated for its waters a channel some twenty feet below the surface. At certain parts a rocky ledge or a pile of boulders stands in its way, and forces it to clear the obstacle with one swift and sudden bound. About half way down, the ravine narrows to a mere defile, where the stream grows wilder, and the banks are steeper, and the vegetation flourishes more richly. The lofty cliffs on the right are here broken up into a variety of fantastic outlines: pyramids and pinnacles, spires and towers, battlemented fortresses and ruined cathedrals—the whole resembling a fairy vision embodied in stone, which might furnish the imagination of poet or artist with inexhaustible material.

Between Ogden and San Francisco the line is called the Central Pacific Railroad. It skirts the Great Salt Lake⁸ on the north, and crossing the Great American Desert,⁹ approaches the Pacific Alps. In traversing these mountains, the line again reaches a remarkable elevation, rising at one point to the height of 7048 feet above the sea level. Thereafter, however, the descent is rapid—a fall of nearly 7000 feet being accomplished in little more than 100 miles.

This descent brings us to Sacramento city, the capital of “the Golden State,” as California is called, and the meeting-place of many important lines of traffic. Here we have a curious evidence of the fact that the far West is only the beginning of the East; for in Sacramento, as in San Francisco, a considerable proportion of the lower classes of the population is Chinese.

The terminus of the line is not at San Francisco itself, but at Oakland, on the eastern shore of San Francisco Bay. Between these places there is a mammoth steam ferry-boat, which conveys the train with its passengers and baggage across the bay in twenty minutes.

San Francisco is built on the western shore of the bay of the same name, near the extremity of a peninsula which stretches northward between that bay and the Pacific. As seen from the rising ground above Oakland, on the opposite side of the bay, San Francisco presents a fine appearance. The northern portion of the city is scattered over a series of dry and sandy hills, which are almost entirely destitute of foliage. The southern

or business part of the city is more regularly built, consisting of long parallel streets, which generally terminate in 'commodious quays. Across the peninsula, seven or eight miles broad at this its northern extremity, we see the long unbroken line of the Pacific; and on the right the Golden Gate, which connects the ocean with the bay. At its narrowest point, where it is one mile broad, this inlet is 'commanded by a fort and light-house, which are distant from San Francisco about five miles in a north-westerly direction.

A large proportion of the houses in San Francisco are built of wood: but these are being gradually outnumbered and 'super-seded by erections of stone; a plentiful supply of which, easily worked and agreeably tinted, is obtained from an island in the bay. Of this stone are built many of the public edifices, some of which are handsome and 'imposing structures. The number of elegant private 'residences, also, is increasing rapidly with the 'prosperity of the city.

San Francisco now ranks sixth in importance among the commercial cities of the United States, and has a population of 150,000. It is now the chief sea-port on the Pacific coast; and it seems likely to become, especially in connection with the Pacific Railway, the great corn 'depôt of Western America.

The mildness of its climate is attested by the 'perennial flowering of many delicate plants which are almost unknown in the Eastern States. Geraniums, fuchsias, verbenas, jessamine, roses, and a wealth of flowers which bloom only with 'reluctance and for a short season in most of the older States, are here found in constant perfection; and the city conceals amid its sandy and uninviting hills many gardens, which are 'emphatically "gardens of delight."

From San Francisco the traveller crosses the Pacific to Hong-Kong, either by way of Yokohama in Japan, or of Honolulu in the Sandwich Islands. At this point he might resume his overland journey, and cross Central Asia; but he would have great difficulty in procuring means of conveyance, and would encounter endless obstacles and delays. He therefore proceeds from Hong-Kong by the established route to Point de Galle in Ceylon, and thence to Aden, Suez, and Alexandria, by the usual Indian overland route.

The quickest route from Alexandria to London and Liverpool is that by way of Brindisi and Turin. This journey can now be performed in seven days, only three of which are spent at sea. Brindisi (the ancient Brundisium) was in former times the great

naval station of the Roman empire. It is situated on the coast of the Adriatic, near the south-eastern extremity of Italy. It is directly connected by rail with Florence and Turin. Between Turin and Chambery in France, the railway passes through the heart of the Alps by the famous Mont Cenis tunnel—one of the greatest triumphs of modern engineering. The tunnel was begun in 1857, on the opposite sides of the mountain. The excavators met in the middle of the mountain on Christmas Day, 1870; and the first train passed through the tunnel, which is eight miles long, and cost nearly three million pounds, on the 17th of September 1871.

Paris is reached in a few hours, and London and Liverpool in a few hours more; and thus the circuit of the globe has been completed. It has been estimated that one may perform this great tour of the world in about seventy-seven days; the distance traversed being 23,700 miles.

abundant, plentiful.
accomplish, perform.
animation, life.
characteristic, feature.
circuit, journey around
civilization, human culture.
civilizing, ameliorating.
commanded, controlled.
commanding, spacious.
denuded, stripped.
depôt (*de-pô*), store-house.
desert, devoid.
destructive, devastating.
emphatically, preeminently.
encroaching, infringing.
engineering, mechanical
estimated, calculated art.

evidence, proof.
excavators, borers
extremity, termination.
fantastic, fanciful.
gigantic, vast.
imposing, impressive
incessantly, constantly.
inexhaustible, endless.
insignificant, unimportant.
junction, meeting-place.
locomotive, steam carriage.
mammoth, enormous.
marvellously, wonderfully.
massive, powerful. [fully.
noticeable, remarkable.
overpowering, overwhelming.
perennial, continuous.

picturesque, striking.
precipitous, steep.
prolonged, lengthened.
promontory, headland.
prosperity, well-being.
relieved, lightened.
reluctance, unwillingness
residences, abodes.
superseded, displaced.
temperate, moderate in climate.
terminus, end of a railway line.
thoroughfare, main street.
transatlantic, crossing the Atlantic.
transparent, clear.
traversing, crossing. [ing.
undulating, rising and fall-

¹ Southern Seas.—Though the Pacific and the Atlantic are connected by the North-West Passage, that cannot, of course, be reckoned a practicable route.

² Atlantic and Pacific Railway.—A Canadian line, connecting the shores of Nova Scotia and British Columbia, has been decided on, and is now in progress.

³ The highest point.—The highest point in Europe reached by the locomotive is 6700 feet. This was accomplished in 1866, when a climbing locomotive ascended Mont Cenis by means of central rails and cogged wheels.

⁴ Council Bluffs.—So called from the bluffs, or bold rocks, in the neighbourhood,

where two explorers held a council with Indians in 1804.

⁵ The prairie dog is a rodent, and not a carnivorous animal. Its popular name is due to the yelping sound which it utters, and which resembles the bark of a puppy.

⁶ The Rocky Mountains.—These mountains extend throughout the whole of North America, from north to south. They are continued in the Andes of South America. The highest peak in the Rocky Mountains proper is Fremont Peak (13,500 feet) in the Wind River Mountains, not far from which the Pacific Railway runs. There are higher summits farther north, in the Chippewyan range—as Mount Hooker

(15,500 feet), and Mount Brown (16,000 feet). The highest summit of all is Popocatepetl (18,000 feet), in Mexico. It is an active volcano, covered with perpetual snow.

⁷ **Echo Creek.**—More correctly Echo Cañon (*canyon*). *Cañon* is a Spanish word meaning a *tube*, or narrow channel.

⁸ **Great Salt Lake.**—Salt Lake City, the famous Mormon settlement, is 37 miles

south of Ogden, with which it is connected by railway. The Lake is 75 miles long, by 30 broad; average depth, 8 feet; greatest depth, 33 feet. It has many islands, some of which rise 3000 feet above the Lake.

⁹ **Great American Desert.**—An elevated desert, lying between the Rocky Mountains and the Pacific Alps. It is a rainless region, with a few streams flowing into salt marshes or lakes.

QUESTIONS.—How must a voyage round the world be made? How long does it usually occupy? By what route may the journey be performed in much less time? Where does the route start from? What is marvellous in the history of Liverpool? In what time do we reach New York? Where do we then go? By what means? What is the length of the line? What time does the journey from New York to San Francisco take? What is the highest level reached by the line? What is the highest level reached in Europe? What are the four great sections of the line? Of what is Chicago the most striking example? What calamity befell it in 1871? How far from Chicago to Omaha? What is the most considerable town on the route? On what river is Omaha? What town is on the eastern side of the river? What does Omaha bid fair to become? What valley lies west of it? What region? What are these prairies? How is the monotony of grassy plain sometimes relieved? What gives animation to the landscape? What animals are found in remote districts? How are the distances sometimes varied? What animal is found on the barren tracts of sand? What is the overpowering feature of the prairies? Mention another noticeable characteristic of these plains. Where does the highest station on the line occur? What is it called? Where is Echo Creek? For what is it remarkable? To what is it compared? What is the line called between Ogden and San Francisco? What lake does it skirt? What desert does it cross? What mountains does it traverse? At what elevation? What city is then reached? What shows that the West is here passing into the East? Where is the terminus of the line? How is the train conveyed to San Francisco? On what does San Francisco stand? What is it likely to become? What places are touched at between San Francisco and Alexandria? What is the quickest route from Alexandria to London? Where is Brindisi? What does the railway pass through, between Italy and France? When was the tunnel begun? When was it completed? In what time may this great tour of the world be made? What is the distance traversed?

NATURE.

BEAUTIFUL are the 'heralds
That stand at Nature's door,¹
Crying, "O traveller, enter in,
And taste the Master's store!"

"Enter," they cry, "to a kingly feast,
Where all may venture near;—
A million beauties for the eye,
And music for the ear:

"Only, before thou enterest in,
Upon the 'threshold fall,
And pay the 'tribute of thy praise
'To Him who gives thee all.'"

So some kneel down, and enter
 With 'reverent step and slow ;
 And calm airs 'fraught with precious scent
 Breathe round them as they go :

Gently they pass 'mid sight and sound
 And the sunshine round them sleeping,
 To where the angels Faith and Love
 The inner gates are keeping.

Then backward rolls the 'wondrous 'screen
 That hides the secret place,
 Where the God of Nature veils himself
 In the brighter 'realms of Grace :

But they who have not bent the knee
 Will smile at this my story ;
 For, though they enter the temple gates,
 They know not the inner glory.

W. E. LITTLEWOOD

fraught, la'den
 her'alds, proclaim'ers.
 realms, re'gions; king'doms.

rev'erent, hum'ble.
 screen, curtain
 thresh'old, en'trance.

trib'ute, meed, hom'age
 ven'ture, dare to come.
 won'drous, won'derful.

¹ Nature's door.—In this poem Nature is represented as a great temple, full of God's wondrous works, with an inner "secret place" veiling the wonders of His grace and love to man. All may enter the outer temple; but only those who kneel reverently at the threshold, and acknowledge God, the maker of these wonders, as the Father of their spirits, are permitted to see the "inner glory."

THE VICISSITUDES OF LIFE.

FAREWELL, a long farewell, to all my greatness!
 This is the state of man: to-day he puts forth
 The tender leaves of hope; to-morrow blossoms,
 And bears his blushing honours thick upon him;
 The third day comes a frost, a killing frost,
 And, when he thinks, good easy man, full surely
 His greatness is a-ripening, nips his root,
 And then he falls, as I do. I have ventured,
 Like little wanton boys that swim on bladders,
 This many summers in a sea of glory,
 But far beyond my depth: my high-blown pride
 At length broke under me, and now has left me,
 Weary and old with service, to the mercy
 Of a rude stream, that must for ever hide me.
 Vain pomp and glory of this world, I hate ye:
 I feel my heart new opened. Oh, how wretched
 Is that poor man that hangs on princes' favours!

SHAKESPEARE.

THE TROPICAL WORLD.

PART I.—THE WESTERN HEMISPHERE.

THE tropical regions, more than any other part of the world, are suggestive of magnificence—of luxuriant vegetation and diversified animal life; yet they embrace but a small portion comparatively of the land of the globe. While the greater part of the North Temperate Zone is occupied by land, the floods of ocean roll over much the larger portion of the equatorial regions; for both torrid America and Africa appear as mere islands in a vast expanse of sea. This superabundance of water is one of the great provisions which Nature has made for mitigating the heat of the vertical sun. To this cause the Tropics are indebted for those copious rains and periodic winds and constant ocean currents, which endow them with such an amazing variety of climate. The Indian Archipelago, the Peninsula of Malacca, the Antilles, and Central America, are all undoubtedly indebted to the waters which bathe their coasts for a more temperate climate than they would have had if they had been grouped together in one vast continent.

Another cause of the varieties of tropical climate is to be found in varied elevation of surface. Thus the high situation of many tropical lands moderates the effects of equatorial heat, and endows them with a climate similar to that of the temperate, or even of the cold regions of the globe. The Andes and the Himalaya, the most stupendous mountain-chains of the world, raise their snow-clad summits either within the tropics or immediately beyond their verge, and must be considered as ordained by Providence to counteract the effects of the vertical sunbeams over a vast extent of land. In Western Tropical America, in Asia, and in Africa, there are immense countries rising like terraces thousands of feet above the level of the ocean, and reminding the European traveller of his distant northern home by their productions and their cool temperature. Thus, by means of a few simple physical and geological causes acting and reacting upon each other on a magnificent scale, Nature has bestowed a wonderful variety of climate upon the tropical regions, producing a no less wonderful diversity of plants and of animals.

Embracing the broad base of South America, the tropical regions bring before us the wide-spreading llanos of Venezuela and New Grana'da;* the majestic Andes, rising through every

* See lesson on *The Llanos of South America*, p. 219.

zone of vegetation to an Arctic region of 'perpetual snow ; and the high table-lands of Peru and Bolivia, where the llama, the alpaca, and the vicuña have their home. The frosts of winter and an eternal spring are nowhere found in closer 'proximity than in the Peruvian highlands : for deep valleys cleave the windy *Puna*, as these lofty table-lands are called ; and when the traveller, 'benumbed by the cold blasts of the mountain-plains, descends into the sheltered gorges, he almost suddenly finds himself transported from a northern climate to a terrestrial paradise.

Situated at a height where the 'enervating power of the tropical sun is not felt, and where at the same time the air is not too rarefied, these pleasant mountain vales, protected by their rocky walls against the gusts of the puna, enjoy all the advantages of a genial sky. Here the 'astonished European sees himself surrounded by the rich corn-fields, the green lucern-meadows,¹ and the well-known fruit trees of his distant home ; so that he might almost fancy that some friendly enchanter had transported him to his native country, but for the cactuses² and the agaves³ on the mountain-slopes by day, and the 'constellations of another hemisphere in the heavens by night.

There are regions in this remarkable country where the traveller may leave the snow-roofed puna hut in the morning, and before sunset pluck pine-apples and bananas on the cultivated margin of the 'primeval forest ; where in the morning the stunted grasses and arid lichens of the naked plain remind him of the Arctic regions, and where he may repose at night under the fronds of gigantic palms.

Descending to the Pacific sea-board, we come upon the 'desolate Peruvian sand-coast, where the eye seldom sees anything but fine drift-sand and sterile 'heaps of stone ; and where for miles and miles the traveller meets no traces of vegetation, nor finds one drop of water. But when we pass to the other side of the Andes, how 'marvellous the contrast !⁴ On the one side, an arid, waterless, treeless waste ; on the other, the luxuriant valley of the Amazon, the giant of rivers, which has made a broad course for itself through vast 'savannas and stuperdous forests !

The Amazon has its cradle high up among the peaks of the Andes, where the condor, the vulture of America, builds its nest. So vast is the basin of that great river, that all Western Europe could be placed in it without touching its boundaries ! It is entirely situated in the Tropics, on both sides of the Equator, and receives over its whole extent the most abundant rains.

The swelling of the river, after the rainy season,⁵ is 'gigantic as

itself. In some parts the water rises above forty feet ; and travellers have even seen trees whose trunks bore marks of the previous inundation fifty feet above the height of the stream during the dry season. Then for miles and miles the swelling giant inundates his low banks, and, 'majestic at all times, becomes terrible in his grandeur when rolling his angry torrents through the wilderness. The largest forest-trees tremble under the pressure of the waters. Huge trunks, uprooted and carried away by the stream, bear witness to its power. Fishes and alligators now swim where a short while ago the jaguar lay in wait for its prey ; and only a few birds, perching on the highest tree-tops, remain to witness the 'tumult which disturbs the silence of the woods.

When at length the river retires within its usual limits, new islands have been formed in its bed, while others have been swept away ; and in many places the banks, undermined by the floods, threaten to crush the passing boat by their fall,—a 'misfortune which not seldom happens, particularly when, along with the loosened banks, high trees fall headlong into the river.

The magical beauty of tropical vegetation reveals itself in all its glory to the traveller who steers his boat through the 'solitary mazes of the Amazon. Here the forest forms a canopy over his head ; there it opens, allowing the sunshine to disclose the secrets of the wilderness ; while on either side the eye 'penetrates through beautiful vistas into the depths of the woods. Sometimes, on a higher spot of ground, a clump of trees forms an island worthy of Eden. A chaos of bush-ropes⁶ and creepers flings its garlands of gay flowers over the forest, and fills the air with the sweetest odours. Numerous birds, 'rivalling in beauty of colour the flowers of these hanging gardens, animate the banks of the lagoon ; gaudy macaws⁷ perch on the loftiest trees ; humming-birds dart with lightning speed from flower to flower—now hovering for an instant before you, as if to allow you to admire their surpassing beauty—now vanishing again with the 'rapidity of thought. But, as if to remind one that death is not banished from this scene of Paradise, a dark-robed vulture screeches through the woods ; or an alligator, like a black log of wood or a sombre rock, rests on the 'dormant waters.

In these boundless forests the monkeys form much the greater part of the 'mammalian inhabitants ; for each species, though often confined within narrow limits, generally consists of a large number of individuals. The various 'arboreous fruits which the savage population of these immeasurable wilds is unable to turn to ad-



VEGETATION IN THE TROPICS.

vantage, fall chiefly to their share ; many of them also live upon insects. They are never seen in the open savannas, as they never touch the ground unless compelled by the greatest necessity. The trees of the forests furnish them with all the food they require ; it is only in the woods that they feel "at home," and secure against the attacks of mightier animals : why then should they quit them for less congenial haunts ?

For their perpetual wanderings from branch to branch, Nature has bountifully endowed many of them, not only with robust and muscular limbs and large hands, whose moist palms facilitate the seizure of a bough, but in many cases also with a prehensile tail, which may deservedly be called a fifth hand, and is hardly less wonderful in its structure than the proboscis of the elephant. Covered with short hair, and completely bare underneath towards the end, this admirable organ rolls around the boughs as though it were a supple finger, and is at the same time so muscular that the monkey frequently swings by it from a branch, like the pendulum of a clock. Scarce has he grasped a bough with his long arms, when immediately coiling his fifth hand round the branch, he springs on to the next ; and secure from a fall, he hurries so rapidly through the crowns of the highest trees that the sportsman's bullet has scarce time to reach him in his flight.

Of the beasts of prey that frequent these vast woods, the jaguar is the most formidable, resembling the panther by his spotted skin, but almost equalling the Bengal tiger in size and power. He roams about at all times of the day, swims over broad rivers, and even in the water proves a most dangerous foe ; for when driven to extremities he frequently turns against the boat which contains his assailants, and forces them to seek their safety by jumping overboard. Many an Indian, while wandering through thinly peopled districts, where swampy thickets alternate with open grass plains, has been torn to pieces by the jaguar ; and in many a lonely plantation the inhabitants hardly venture to leave their enclosures after sunset, for fear of his attacks. Far from being afraid of man, this ferocious animal springs upon him when alone ; and when pressed by hunger he will even venture during the day-time into the mountain villages to seek his prey.

The dreadful storms which burst suddenly over the Amazon recall to memory the tornadoes of the ocean. The howlings of the monkeys, the shrill tones of the mews, and the visible terror of all animals, first announce the approaching conflict of the elements. The crowns of the palms rustle and bend, while as

yet no breeze is perceptible on the surface of the stream ; but a hollow murmur in the air precedes the black clouds ascending from the horizon, like grim warriors ready for battle.

And now the old forest groans under the shock of the hurricane ; a night-like darkness veils the face of nature ; and, while torrents of rain descend amid uninterrupted sheets of lightning and terrific peals of thunder, the river rises and falls in waves of a dangerous height. Then it requires great skill to preserve the boat from sinking ; but the Indian pilots steer with so masterly a hand, and understand so well the first symptoms of the storm, that it seldom takes them by surprise, or renders them victims of its fury.

A majestic uniformity is the character of European woods, which often consist of only one species of tree ; but in the tropical forests an immense variety of families strive for existence, and even in a small space one tree scarcely ever resembles its neighbour. Even at a distance this difference becomes apparent in the irregular outlines of the forest, as here a dome-shaped crown, there a pointed pyramid, rises above the broad flat masses of green, in ever-varying succession. On approaching, differences of colour are added to irregularities of form ; for while our forests are destitute of the ornament of flowers, many tropical trees have large blossoms, mixing in thick bunches with the leaves, and often entirely overpowering the verdure of the foliage by their gaudy tints. Thus splendid white, yellow, and red-coloured crowns are mingled with those of darker or more humble hue. When at length, on entering the forest, the single leaves become distinguishable, even the last traces of harmony disappear. Here they are delicately feathered, there lobed : here narrow, there broad : here pointed, there obtuse : here lustrous and fleshy, as if in the full luxuriance of youth ; there dark and arid, as if decayed with age. As the wind plays with the foliage, it appears now silvery, now dark green—now of a lively, now of a sombre hue.

Variety of vegetation is characteristic of all tropical countries, but nowhere are the varieties so wonderfully brought together as on the Mexican plateaux. There the vegetation rises in successive zones from the base of the mountains to heights unparalleled in any other part of the world. It is literally true that the inhabitants, without leaving their native land, may view the vegetable forms of every country on the globe, and pluck nearly every fruit that is found between the Equator and the Arctic Circle.

arbo'reous, produced on trees.
 assail'ants, pursu'ers.
 aston'ished, surprised'.
 benumbed, stu'pefied.
 conge'nial, suit'able.
 constella'tions, star-des'olate, bar'ren. [groups.
 distin'guishable, recog-niz'able.
 diver'sified, va'ried.
 dor'mant, sleep'ing.
 eleva'tion, alti'tude.
 ener'gizing, weak'en'ing.
 facil'itate, make easy.
 fero'cious, fierce.
 for'midable, terrible.

gigan'tic, colos'sal.
 inunda'tion, flood.
 irregu'larity, diver'sities.
 lobed, having rounded di-visions.
 lus'trous, shin'ing.
 luxu'riant, abund'ant.
 magni'ficent, grand.
 majes'tic, grand.
 mamma'lian, of the order of suck-givers.
 mar'vellous, won'derful.
 misfor'tune, ac'cident.
 mit'igating, moder'ating.
 obtuse, having a broad point.
 pen'etrates, pierces.

percep'tible, appa'rent.
 perpet'ual, everlast'ing.
 prehens'ile, adapted for seizing.
 prime'val, orig'inal.
 probos'cis, trunk.
 proxim'ity, near'ness.
 ri'valling, em'ulating.
 savan'nas, mead'ows.
 sol'itary, lone'ly.
 stupen'dous, enor'mous.
 superabun'dance, excess'.
 tu'mult, commo'tion.
 undoubt'edly, cer'tainly.
 uniform'ity, same'ness.
 uninterrupt'ed, unbro'ken.
 ver'dure, green'ness.

¹ Luc'ern-meadows, meadows covered with *lucern*, a leguminous (pea-like) plant cultivated by farmers for fodder.

² Cac'tus, a well known tropical plant, having a thick fleshy stem, generally covered with spines and destitute of leaves. Several kinds bear beautiful flowers. The cochineal insect, highly valued for the dye which is made of it, feeds on a species of cactus. (*Pl. cacti, or cactuses.*)

³ A'gave, the American aloe, a handsome flowering plant. Its flower stem is often twenty or thirty feet in height. It rises from the centre of the plant like a flag pole, and the flowers form a circle, like the lights of a candelabra, around its upper end.

⁴ How marvellous the contrast. — In general, within the Tropics, the eastern coasts and the eastern slopes of mountains are better watered than lands with a western exposure. This is owing to the influence of the trade winds; the most

striking example of which is afforded by South America. The Atlantic trades cross that continent as east winds laden with moisture; but so completely are they drained of their moisture by the cooling influences of the Andes, that while the eastern gorges of these mountains are clothed with perpetual verdure, their western slopes are almost uniformly and constantly arid.

⁵ The rainy season. — Tropical countries have either one or two "rainy seasons" in the year; those in the vicinity of the Tropics have one, those near the Equator have two, depending on the influence of the Sun.

⁶ Bush-ropes, vegetable-cables; the tendrils and fibres of creeping plants twisted together like ropes and extended like festoons from tree to tree.

⁷ Macaw', a large and strong bird of the parrot family, distinguished by having a tail longer than its body, and a bill hooked at the point.

QUESTIONS. — Of what are the tropical regions suggestive? Wherein do they differ from the north temperate zone? What effect has this on their climate? Mention another cause of the varieties of tropical climate. Give examples of its operation? In what do these diversities produce corresponding variety? What are the great physical features of tropical America? What constitute the *Puna*? For what are these regions chiefly remarkable? What is the nature of the Peruvian sea-board? What contrast do the two sides of the Andes present? To what is this due? To what height does the Amazon rise after the rainy season? What changes are observed after it has fallen again? Where is the beauty of tropical vegetation seen to greatest advantage? Mention birds that are seen there. What mammals are most numerous in these forests? What is the monkey's fifth hand? What does it enable him to do? What is the most formidable beast of prey in the Brazilian forests? What do the storms of the Amazon recall to memory? Mention some of their striking features. Wherein do tropical woods chiefly differ from European ones? What produces their differences of colour? Where is variety of vegetation most strikingly exhibited? How is this variety illustrated?

MAN AND THE INDUSTRIAL ARTS.

As 'industrial creatures, we often look like wretched copyists of animals far beneath us in the scale of 'organization ; and we seem to confess as much by the names which we give them. The mason-wasp, the carpenter-bee, the mining caterpillars, the quarrying sea-slugs, 'execute their work in a way which we cannot rival or excel. The bird is an exquisite architect ; the beaver a most skilful bridge-builder ; the silk-worm the most beautiful of weavers ; the spider the best of net-makers. Each is a perfect 'craftsman, and each has his tools always at hand.

Those wise creatures, I believe, have minds like our own, to the extent that they have minds, and are not mere living machines, swayed by a blind instinct ; but their most wonderful works imply neither invention, contrivance, nor 'volition, but only a placid, pleasant, easily rendered obedience to instincts which reign without rivals, and justify their 'despotic rule by the infallible happiness which they secure. It has cost none of these ingenious artists any intellectual effort to learn its craft, for God gave it to each perfect in the beginning ; and, within the circle to which they apply, the rules which guide their work are 'infallible, and know no variation.

To those creatures, however, the Author of all has given, not only infallible rules for their work, but 'unflinching faith in them. Labour is for them not a doubt, but a certainty. Duty is the same thing as happiness. They never grow weary of life, and death never surprises them ; and they are less to be likened to us than to perfect self-repairing machines, which swiftly raise our admiration from themselves to Him who made and who 'sustains them.

We are industrial for other reasons, and in a different way. Our working instincts are very few ; our faith in them still more feeble ; and our physical wants far greater than those of any other creature. Indeed, the one half of the Industrial Arts are the result of our being born without clothes ; the other half, of our being born without tools.

I do not propose to offer you a 'catalogue of the arts which our unclothedness compels us to foster. The shivering savage in the colder countries robs the seal and the bear, the buffalo and the deer, of the one mantle which Nature has given them. The wild huntsman, by a swift but simple 'transmutation, becomes the clothier, the tailor, the tanner, the currier, the leather-dresser,

the glover, the saddler, the shoemaker, the tent-maker. And the tent-maker, the arch-architect¹ of one of the great schools of architecture, becomes quickly a house-builder, building with snow where better material is not to be had; and a ship-builder, constructing, out of a few wooden ribs and stretched animal skins, canoes which, as sad experience has shown, may survive where English ships of oak² have gone to destruction.

Again: the unchilled savage of the warmer regions seeks a covering, not from the cold, but from the sun which smites him by day, and the moon which smites him by night. The palm, the banana, the soft-barked trees, the broad-leaved sedges and long-fibred grasses are spoiled by him, as the beasts of the field are by his colder brother. He becomes a sower, a reaper, a spinner, a weaver, a baker, a brewer, a distiller, a dyer, a carpenter; and whilst he is these, he bends the pliant stems of his tropical forests into roof-trees and rafters, and clothes them with leaves, and makes for himself a 'tabernacle of boughs, and so is the arch-architect of a second great school of architecture; and, by-and-by, his twisted branches and interlaced leaves grow into Grecian columns³ with Corinthian acanthus capitals,⁴ and Gothic pillars,⁵ with petrified plants⁶ and stony flowers 'gracefully curling round them.

Once more: in those 'temperate regions where large animals and trees do not greatly abound, turfs, or mud, or clay, or stones, or all together, can be fashioned into that outermost garment which we call a house, and which we most familiarly connect with the notion of architecture.

It is not, however, his cultivation either of the arts which have been named, or of others, that makes man peculiar as an industrial animal;—it is the mode in which he practises them. The first step he takes towards remedying his nakedness and helplessness, is in a direction in which no other creature has led the way, and none has followed his example. He lays hold of that most powerful of all weapons of peace or war, *Fire*, from which every other animal, unless when fortified by man's presence, flees in terror; and with it alone not only clothes himself, but lays the foundation of a hundred arts.

Man may be defined as the only animal that can strike a light,—the solitary creature that knows how to kindle a fire. This is a very 'fragmentary definition of the "Paragon⁷ of animals," but it is enough to make him the conqueror of all the rest. The most degraded savage has discovered how to rub two sticks together, or whirl the point of one in a socket in the other

till the wood is kindled. And civilized man, as much as his savage brother, is a fire-worshipper in his practical doings. The great conquering peoples of the world have been those who knew best how to deal with fire. The most wealthy of the active nations are those which dwell in countries richly provided with fuel. No inventions have changed the entire world more than steam and gunpowder. We are what we are, largely because we are the ministers and masters of Fire.

Clothe-less creatures by birth, we are also tool-less ones. Every other animal is by nature fully equipped and caparisoned for its work; its tools are ready for use, and it is ready to use them. We have first to invent our tools, then to fashion them, and then to learn how to handle them. Two-thirds at least of our industrial doings are thus preliminary. Before two rags can be sewed together, we require a needle, which embodies the inventiveness of a hundred ingenious brains; and a hand, which only a hundred botchings and failures have, in the lapse of years, taught to use the instrument with skill.

It is so with all the crafts, and they are inseparably dependent one on another. The mason waits on the carpenter for his mallet, and the carpenter on the smith for his saw; the smith on the smelter for his iron, and the smelter on the miner for his ore. Each, moreover, needs the help of all the others;—the carpenter the smith, as much as the smith the carpenter; and both the mason, as much as the mason both. This helplessness of the single craftsman is altogether peculiar to the human artist. The lower animals are all polyartists,⁸ amongst whom there are no degrees of skill; and they have never heard of such a doctrine as that of the division of labour.

The industrialness, then, of man, is carried out in a way quite peculiar to himself, and singularly illustrative of his combined weakness and greatness. The most helpless, physically, of animals, and yet the one with the greatest number of pressing appetites and desires, he has no working instincts (at least after infancy) to secure the gratification of his most pressing wants, and no tools which such instincts can work by. He is compelled, therefore, to fall back upon the powers of his reason and understanding, and make his intellect serve him instead of a crowd of instinctive impulses, and his intellect-guided hand instead of an apparatus of tools. Before that hand, armed with the tools which it has fashioned, and that intellect, which marks man as made in the image of God, the instincts and weapons of the entire animal creation are as nothing. He reigns, by right of con-

quest, as indisputably as by right of inheritance, the king of this world.

GEORGE WILSON.^(b)

appara'tus, collec'tion.
capar'isoned, har'nessed.
cat'alogue, list.
construct'ing, fash'ioning.
crafts'man, skilled worker.
defined, described
despot'ic, tyrann'ical.
ex'ecute, perform'.
frag'mentary, imper'fect
grace'fully, elegantly.
gratifica'tion, indul'gence.

illus'trative, expos'itory.
indis'putably, unques'tion-
ably.
indus'trial, manufac'tur-
ing.
infall'ible, inca'pable of
error.
inher'itance, descent'.
insep'arably, indis'solubly.
invent'iveness, ingenu'ity.
organiza'tion, an'imal life.

prelim'inary, prepar'atory.
provid'ed, suppli'd.
rem'edying, correct'ing.
sustains', supports'.
tab'ernacle, dwell'ing-
place.
tem'perate, mild.
transmuta'tion, altera'-
tion.
un'al'tering, unhes'itating.
vol'ition, ex'ercise of will.

¹ **Arch-architect.**—An example of how a word loses its primary meaning in composition. *Architect* means, literally, *chief-builder*; but as its secondary meaning is merely *designer* of buildings, in order to convey the idea of preëminence the prefix requires to be repeated; so *arch-architect* means chief designer, or originator.

² **Where English ships of oak.**—For example, the ships of Sir John Franklin's expedition lost in the north polar seas.

³ **Grecian columns.**—The three great orders of Grecian architecture are the Doric, the Ionic, and the Corinthian. The columns in the three orders are readily distinguishable by the ornaments peculiar to their capitals; but they differ essentially in their proportions.

⁴ **Corin'thian acan'thus capitals.**—The capital of the Corinthian column is highly

ornamented, usually with leaves of the acanthus, or herb bear's-foot.

⁵ **Gothic pillars.**—The Gothic style of architecture became prevalent in the twelfth century; but its rise dates from the ninth. Its great peculiarity is the pointed arch, whence it is sometimes called the *pointed* style.

⁶ **Petrified plants.**—The expression is not to be taken in its literal sense, of plants converted into stone, as in the case of fossils. It means simply plants carved in the stone pillars.

⁷ **Par'agon,** a model or pattern, implying superiority or excellence. The quotation is from *Hamlet*, Act ii., Scene 2.

⁸ **Pol'yartists,** performers of many kinds, or parts of work, at the same time. Thus the same bee markets, makes bee-bread, honey and wax, builds store-houses, &c.

QUESTIONS.—What is the great difference between man and the lower animals, as industrial workers? Of what two deficiencies are man's industrial arts the result? What arts result from his unclothedness? What is it, more than the arts themselves, that makes man peculiar as an industrial animal? How, in this respect, may man be defined? Show how two-thirds of all our industrial doings are preliminary. Show how the crafts are thus inseparably dependent on one another. How does man's industrialness illustrate his combined weakness and greatness?

SOMEBODY'S DARLING.¹

INTO a ward of the white-washed halls,
Where the dead and dying lay,
Wounded by bayonets,² shells, and balls,
Somebody's Darling was borne one day—
Somebody's Darling, so young and so brave,
Wearing yet on his pale sweet face,
Soon to be hid by the dust of the grave,
The lingering light of his boyhood's grace.

• Matted and damp are the curls of gold,
 Kissing the snow of that fair young brow;
 Pale are the lips of 'delicate mould—
 Somebody's Darling is dying now.
 Back from his beautiful blue-veined brow
 Brush all the 'wandering waves of gold;
 Cross his hands on his bosom now—
 Somebody's Darling is still and cold.

Kiss him once for Somebody's sake,
 'Murmur a prayer soft and low;
 One bright curl from its fair mates take—
 They were Somebody's pride, you know:
 Somebody's hand had rested there;
 Was it a mother's, soft and white?
 And have the lips of a sister fair
 Been baptized in the waves of light?

God knows best. He has Somebody's love;
 Somebody's heart 'enshrined him there;
 Somebody 'wafted his name above
 Night and morn on the wings of prayer.
 Somebody wept when he marched away,
 Looking so 'handsome, brave, and grand;
 Somebody's kiss on his forehead lay,
 Somebody clung to his parting hand.

Somebody's waiting and watching for him—
 'Yearning to hold him again to her heart;
 And there he lies, with his blue eyes dim,
 And the smiling, childlike lips apart.
 • Tenderly bury the fair young dead,
 'Pausing to drop on his grave a tear;
 Carve on the wooden slab at his head,—
 "Somebody's Darling 'slumbers here."

MRS. LACOSTE.

del'icate, refined'.
 enshrined', cherished.
 hand'some, grace'ful.
 lin'gering, lag'ging.

mat'ted, twist'ed togeth'er
 mur'mur, whis'per.
 paus'ing, wait'ing
 slum'bers, sleeps.

ten'derly, gen'tly.
 waft'ed, float'ed.
 wan'dering, strag'gling
 yearn'ing, long'ing.

¹ **Somebody's Darling.**—This poem, suggested by an incident in the American Civil War (1861–65), draws a touching picture of a scene only too common in warfare, though seldom realized except by those whom it nearly concerns. A young soldier is badly wounded and taken prisoner on the field of battle. He is carried into the surgeons' ward to have his wounds tended.

He gradually sinks and dies, leaving no trace of name, or home, or friend. He is laid in a nameless grave; while those whose darling he is deplore his absence in uncertainty of his real fate, knowing not whether to mourn or to long for him.

² **Bayonet,** a spear fixed on the end of a gun: so called from Bayonne in France, where the arm was first made.

THE TROPICAL WORLD.

PART II.—THE EASTERN HEMISPHERE.

OWING to the absence of inlets, gulfs, and great estuaries, Africa has been the last of the continents to yield to the advances of civilization. Its interior is therefore less known than any other part of the tropical world, excepting perhaps the centre of Australia; but what is known of it shows that it is not destitute of those grand and varied features which characterize the western tropics. Tropical Africa extends from the middle of the Sahara in the north to the plains of the Bushmen in the south. Chief among the natural features of this wide area are the great lakes lying across the Equator, which most probably constitute the highest sources of the Nile. The Nile itself, which rivals the Amazon in the length of its course, is a tropical river; and it is one of the wonders of the world. Three other great rivers belong to tropical Africa;—the Niger in the north; the Congo in the west; and in the south the Zambeze, on which is the highest waterfall in the world.¹

The interior of Africa—so far from being a desolate waste, as was at one time supposed—is a well watered and fertile region, and is remarkable for the extraordinary dimensions both of its vegetable and of its animal life. The chief of its vegetable wonders is the baobab-tree, which has been well called the elephant of the vegetable world. One baobab has been seen whose trunk was thirty feet in diameter and ninety-five in circumference. As these trees are generally hollow, they are frequently made use of as dwellings or stables; and Dr. Livingstone mentions one in which twenty or thirty men could lie down and sleep as in a hut! There are also gigantic sycamores, under whose branches the negroes pitch their huts; while picturesque-looking mangroves² are found fringing the shores of the sea and the mouths of rivers.

To the presence of mangrove trees must be attributed, in part at least, the unhealthy character of the estuaries of African rivers. From the roots, when left bare by the tide, a sickly odour arises; and the vicinity of a mangrove forest is always exposed to the deadly malaria. "The shore," says Kingsley, describing a mangrove forest, "sank suddenly into a low line of mangrove wood, backed by primeval forest. The loathsome floor of liquid mud lay bare beneath. Upon the endless web of inter-arching roots great purple crabs were crawling up and down.



THE MANGROVE

The black bank of dingy leathern leaves above; the endless labyrinth of stones and withes (for every bough had lowered its own living cord, to take fresh hold of the foul soil below); the web of roots, which stretched far away inland;—all seemed one horrid, complicated trap for the voyager: there was no opening, no relief—nothing but the dark ring of mangroves, and here and there an isolated group of large and small, parents and children, bending and spreading, as if in hideous haste to choke out air and sky. Wailing sadly, sad-coloured mangrove-hens ran off across the mud into the dreary dark. The hoarse night-raven, hid among the roots, startled the voyager with a sudden shout, and then all was again silent as the grave."

In the rivers of Africa the terrible crocodile takes the place

held by the alligator³ in America. There also we encounter the hippopotamus⁴ and the still more frightful rhinoceros.⁵ Herds of elephants may be seen winding through the open plains, swimming across the rivers in majestic lines and with elevated trunks, or bathing in the shallow lakes for coolness or protection against insects. The antelope (of which Africa is the special nursery), the giraffe, the buffalo, the zebra, are all found in abundance in the plains of southern and central Africa, from Orange river in the south to the Senegal and Nubia in the north.

The African desert produces only a few plants and animals; but it stamps them all with its own peculiar mark. From the tawny Bedouin to the worm scarcely distinguishable in the sand, it gives all its creatures the same dress—the same colour, which might justly be called the colour of the desert. It is the pale grayish-yellow tint which belongs as well to the gazelle as to the small lark of the sandy wastes. Among the birds there are no doubt many modifications of this general rule, and the deviations increase as the desert gradually merges into the more fertile steppes, but even here its characteristic mark is not to be mistaken.

When we consider the scanty vegetation of the Sahara, we cannot wonder that animal life is but sparingly scattered over its surface. The lion, so frequently misnamed "The king of the desert," only shows himself on its borders. As lions cannot exist without flesh and water, they avoid the sandy desert. In fact, they never leave the wooded mountains of the Atlas, or the fruitful plains of the Soudan, to wander far into the Sahara. There snakes and scorpions are the only dangerous animals to be met with.

According to the seasons, animal life fluctuates in the Sahara from north to south. In winter and spring, when heavy rains, falling on its northern borders, provide wide districts, thoroughly parched by the summer heat, with the water and pasturage needed for the herds, the nomadic tribes wander farther into the desert with their camels, horses, sheep, and goats, and retreat again to the coast-lands as the sun gains power. At that time of the year the wild animals—the lion, the gazelle, and the antelope—also wander farther to the south, which then provides them, each according to its taste, with the nourishment which the dry summer is unable to bestow. The ostrich, too, which during the summer ranged farther to the north, then retreats to the south; for hot and sandy plains are the paradise in which this singular bird delights to roam.

Though Arabia possesses some districts of remarkable fertility, which enjoy almost perpetual verdure, yet the greater part of that vast peninsula consists of burning deserts lying under a sky rarely traversed by a cloud, and stretching into boundless plains, where the eye meets nothing but the uniform horizon of a wild and dreary waste. These naked deserts are encircled, and sometimes intersected, by barren mountains, which run in almost continuous ridges and in different directions from the borders of Palestine to the shores of the Indian Ocean. Their summits tower up into rugged and insulated peaks, but their flinty bosoms supply no humidity to nourish the soil; they concentrate no clouds to screen the parched earth from the withering influence of a tropical sky.

Were it not for the wadys—verdant valleys lying here and there among the hills—and the various wells on watering stations supplied by periodical rains, the greater portion of Arabia must have remained unpeopled, and uninhabitable. In a country like this, where whole years occasionally pass away without a refreshing shower, the possession of a spring is not unfrequently the most valuable property of a tribe. There are large tracts, however, where the luxury of water, as it may well be called, is unknown, and where the desert extends for many a day's journey without affording the traveller the welcome sight of a single well.

Although the high steppes of central Asia are probably the genuine and original country of the horse, yet in Arabia that generous animal attains the highest degree of spirit and swiftness. The tender familiarity with which the horses are treated trains them to habits of gentleness and attachment. When not employed in war or in travelling they loiter about the tents, often going over numbers of children lying on the ground, and carefully picking their steps lest they should hurt them. They are accustomed only to walk and to gallop. Their sensations are not blunted by the incessant abuse of the spur and the whip. Their powers are reserved for the movement of flight and pursuit, and no sooner do they feel the touch of the hand and the stirrup than they dart away with the swiftness of the wind; but if their friend be dismounted in the rapid career, they instantly stop till he has recovered his seat.

In the sands of Arabia the camel is a sacred and precious gift. That strong and patient beast of burden not only supplies the wandering Arab with the greater part of his simple wants: it serves also to secure his immemorial independence by placing

the desert between the enemy and himself. Thus the Bedouin has ever been 'indomitable; and while in other parts of the world we find that the possession of an animal—the sable, the sea-otter—has entailed the curse of slavery upon whole nations, the dromedary in Arabia appears as the instrument of lasting freedom.

As the lion reigns in Africa, so the tiger is lord and master of the Indian jungles. He is a splendid animal—elegantly striped with black on a white and golden ground; graceful in every movement—but of a most 'sanguinary' and cruel nature. The lengthened body resting on short legs, lacks the proud bearing of the lion; while the naked head, the wildly rolling eye, the scarlet tongue constantly lolling from the jaws, and the whole expression of the tiger's 'physiognomy, indicate an insatiable thirst for blood, a pitiless ferocity, which he wreaks indiscriminately on every living thing that comes within his grasp. In the bamboo jungle on the banks of pools and rivers, he waits for the approaching herd; there he seeks his prey, or rather multiplies his murders, for he often leaves the nyghau⁶ still 'writhing in the agony of death, to throw himself upon new victims, whose bodies he rends with his claws, and then plunges his head into the gaping wound, to absorb in deep and luxurious draughts the blood whose fountains he has just laid open.

Nothing can be more delightful than the aspect of a Javanese⁷ savanna, to which clumps of noble trees, planted by Nature's hand, impart a park-like character; yet, even during the daytime, the traveller rarely ventures to cross these beautiful wilds without being accompanied by a numerous 'retinue. The horses frequently stand still, trembling all over, when their road leads them along some denser patch of the jungle, rising like an island from the grassy plain; for their acute scent informs them that a tiger lies concealed in the thicket but a few paces from their path.

Both the panther and the leopard⁸ are widely diffused through the tropical regions of the Old World, being natives of Africa, Persia, China, India, and many of the Indian islands; so that they have a much more extensive range than either the tiger or the lion. The manner in which they seize their prey, lurking near the sides of woods, and darting forward with a sudden spring, resembles that of the tiger; and the chase of the panther is said to be more dangerous than that of the lion, as it easily climbs the trees and pursues its enemy upon the branches.

On turning to the wilds of northern Australia, new aspects of

savage life rise before our view. With new plants and new animals, a new variety of the human race makes its appearance, differing from the Malayan⁹ in figure, in 'physiognomy, in language, and in many of its customs and manners. Though this race occupies one of the lowest grades in the scale of 'humanity, it still offers many points of interest to the observer, and claims our attention both by its qualities and its defects.

When hunting the kangaroo, the native Australian rivals in energy and 'perseverance, in skill and keenness of eye, the Red Indian tracking the wild animals of the Brazilian forest. His glance roves from side to side, in a vigilant, uneasy manner. As soon as he sees a kangaroo, he checks his pace and stands immovable, like one 'transfixed; while his wives, who are at some distance behind him, fall to the ground as if they had been shot. Looking about a hundred yards to the right of the native, you will see a kangaroo erect upon its hind legs and supported by its tail; it is reared to its utmost height, so that its head is between five and six feet above the ground; its short fore-paws hang by its sides, its ears are pointed: it is listening as carefully as the native; and you see a little head peering out from the pouch,¹⁰ to inquire what has alarmed its mother. The native moves not: you cannot tell whether it is a human being or the charred trunk of a burned tree which is before you, and for several minutes the whole group preserve their relative position. At length the kangaroo becomes reassured, drops upon its fore-paws, gives an 'awkward leap or two, and goes on feeding.

Meantime the native advances stealthily and by slow stages, with his arm raised in the attitude of throwing his spear, until he is within reach of his prey. At last the whistling spear 'penetrates the devoted animal: then the wood rings with shouts; women and children all join pell-mell in the chase. After a time the 'exhausted animal turns on its pursuers, places its back against a tree, and prepares to seize and rend any one who may approach too near. The wily native keeps clear of its murderous embrace, and kills it by throwing spears into its breast from the distance of a few yards.

As the land within the tropics is remarkable for the greatness of its physical aspects, so the tropical oceans are preëminent for the violence of their storms. In the Indian and Chinese Seas these convulsions of nature generally take place at the change of the monsoons; in the West Indies, at the beginning and at the end of the rainy seasons. The tornado which 'devastated the

Island of Guadeloupe¹¹ in July 1846, blew down buildings constructed of solid stone, and tore the guns of a battery from their carriages. Another, which raged some years ago in the Mauritius,¹² demolished a church and drove thirty-two vessels on the strand. A few days later, a fleet of crippled vessels, the victims of the recent hurricane, might have been seen making their way into the harbour of Port Louis—some dismasted, others kept afloat with difficulty, firing guns of distress or giving other signs of their helpless condition.

Such are the terrible effects of the tornadoes and cyclones of the Atlantic and the Indian Oceans; but the storms of the misnamed Pacific are no less furious, and frequently overwhelm the coral islands and palm-groves of Polynesia with destruction. A hurricane which, in April 1845, burst over Pitcairn Island,¹³ washed all the fertile mould from the rocks, and, uprooting three hundred cocoa-nut trees, cast them into the sea. Every fishing-boat on the island was destroyed, and thousands of fruit-bearing bananas were swept away.

Though the tropical storms are thus frequently a scourge, they are often productive of no less signal benefits. Many a murderous epidemic has suddenly ceased after one of these natural convulsions; and myriads of insects, the destroyers of the planter's hopes, are swept away by the fierce tornado. Besides, if the equatorial hurricanes are much more furious than our storms, a more luxurious vegetation effaces their vestiges in a shorter time. Thus Nature teaches us that a preponderance of good is frequently concealed behind the paroxysms of her apparently unbridled rage.

Adapted from HARTWIG.

an'telope, a ruminant animal.
awk'ward, clumsy. [mal.
characterize', distinguish.
circum'ference, measurement around.
com'plicated, involved'.
con'centrate, attract'.
con'stitute, form.
cy'clones, ro'tatory storms.
dev'astated, desolated.
diam'eter, measurement through.
dismount'ed, unhorsed'.
disting'uishable, discern'.
el'e'vated, held aloft. [ible.
encoun'ter, meet with.
epidem'ic, infectious disease.
es'tuaries, river-mouths.

exhaust'ed, tired-out.
familiar'ity, friendliness.
fertil'ity, fruitfulness.
fluc'tuates, moves about.
gazelle', a kind of antelope.
human'ity, the human race.
hur'ricane, violent storm.
immemo'rial, long-established.
indom'itable, not to be subdued.
in'sulated, solitary.
intersect'ed, traversed.
lux'ury, dainty.
mala'ria, poisonous air.
modifica'tions, limitations.
myr'iads, immense numbers.

nomad'ic, wandering.
nour'ishment, sustenance.
par'oxysms, convulsions.
pen'e'trates, pier'ces.
perpet'ual, unbrok'en.
perse'ver'ance, persist'ence.
physiogn'omy, cast of countenance.
prepon'derance, excess'.
ret'inue, convoy.
sañ'guinary, blood-thirsty.
sensa'tions, feelings.
steppes, plains.
torna'does, whirling tempests.
transfix'ed, pierced through.
writh'ing, making contortions.

¹ **The highest waterfall in the world.**—The Victoria Falls, on the Zambeze. The river, there more than a mile wide, rushes over a precipice 310 feet high, and then flows on for 30 miles in a rocky channel only 60 feet broad.

² **Man'groves.**—The peculiarity of the mangrove tree, which is found in America as well as in Africa, is that its seeds germinate on the branches, and when the shoots are considerably grown they fall off and take root in the mud. As the young tree grows up, it sends out fresh roots from its trunk and lower branches. The tree at last seems to be supported by a net-work of roots, or complicated series of arches, in the midst of which crabs, aquatic birds and insects take up their abode.

³ **Croc'odile . . . al'ligator.**—The crocodile differs from the alligator in having webbed feet. In both, the upper part of the body is protected by horny armour-plates. Both grow to the length of 16 or 18 feet.

⁴ **Hippopot'amus,** a huge thick-skinned (pachydermatous) animal, inferior only to the elephant in size. The name means "river-horse." It is supposed to be the *be'hemoth* described in Job xl. It walks at the bottom of the water, raising its head occasionally above the surface for respiration. Its thick hide is bullet-proof. It has two short tusks, very hard and very white. It is harmless until attacked.

⁶ **Rhino'eros,** another huge pachyderm, of nearly the same size as the hippopotamus. But while the latter has

tusks coming out of the jaw, the rhinoceros has a horny protuberance from two to three feet in length on the top of its snout.

⁶ **Nylghau,** an animal of the antelope family. Its body, horns, and tail resemble those of the bull; its head, neck, and legs those of the deer.

⁷ **Javanese',** belonging to the island of Java, one of the Sunda group in the East Indies.

⁸ **Pan'ther . . . leop'ard.**—Both animals are now believed to belong to the same family. They differ only in this, that the leopard has small spots, thickly set, while those of the panther are large and open. Leopard [Lat. *leo*, *pardus*] means *lion-panther*.

⁹ **Malay'an,** or brown race, characterized by narrow head, and black, stiff hair. It includes the natives of Malacca, Malaysia, Polynesia, and New Zealand.

¹⁰ **The pouch.**—The kangaroo belongs to the order of pouched animals (*marsupials*); so called because they carry their young in an external pouch. (See CLASSIFICATION OF ANIMALS, p. 366.)

¹¹ **Guadeloupe',** one of the West Indian islands, south of Antigua.

¹² **The Mauritius,** an island in the Indian Ocean, east of Madagascar. *Port Louis* is its capital. (See p. 211.)

¹³ **Pitcairn Island,** a solitary island in the South Pacific, scarcely five miles in circumference. It is 1200 miles south-east of Tahiti. There the mutineers of the *Bounty* first settled in 1789.

QUESTIONS.—Why is so little known of the interior of Africa? What are the limits of tropical Africa? What are its chief natural features? Name its four great rivers. What great waterfall is on the Zambeze? What is the chief vegetable wonder of tropical Africa? For what are these trees sometimes used? Name the chief animals found in that region. What is remarkable about the plants and animals of the desert? Where has the lion his home? What are the only dangerous animals met with in the Sahara? What causes animal life to fluctuate in the desert? What is the character of most of Arabia? What alone saves it from being uninhabitable? What two animals do we associate with Arabia? What is the original country of the horse? How does the camel secure the freedom of the Arab tribes? What animal is lord of the Indian jungles? How does the tiger multiply his murders? Where are the panther and the leopard found? Wherein do these animals differ? What animal is characteristic of Australia? How do the natives hunt it? For what are the tropical oceans remarkable? What are the circular storms in the Atlantic and Indian Oceans called? Mention instances of great storms in the different oceans. In what way are these storms often beneficial?

THE SONG OF THE SHIRT.

WITH fingers weary and worn, with eyelids heavy and red, a woman sat in unwomanly rags, 'plying her needle and thread—Stitch! stitch! stitch! in 'poverty, 'hunger, and dirt; and still with a voice of 'dolorous pitch she sang the "Song of the Shirt!"

"Work! work! work! while the cock is crowing aloof! and work! work! work! till the stars shine through the roof! It's oh, to be a slave along with the 'barbarous Turk, where woman has never a soul to save, if this is Clristian work!

"Work! work! work! till the brain begins to swim; work! work! work! till the eyes are heavy and dim! Seam, and 'gusset, and band; band, and gusset, and seam; till over the buttons I fall asleep, and sew them on in a dream. O men, with sisters dear! O men, with mothers and wives! it is not linen you're wearing out, but human creatures' lives. Stitch! stitch! stitch! in poverty, hunger, and dirt; sewing at once, with a double thread, a shroud as well as a shirt.

"But why do I talk of Death? that 'phantom of grisly bone; I hardly fear his 'terrible shape, it seems so like my own. It seems so like my own, because of the fasts I keep; O God, that bread should be so dear, and flesh and blood so cheap!

"Work! work! work! My 'labour never flags; and what are its wages? A bed of straw, a crust of bread—and rags. That 'shattered roof and this naked floor, a table, a broken chair, and a wall so blank, my 'shadow I thank for sometimes falling there.

"Work! work! work! from weary chime to chime; work! work! work! as prisoners work for crime. Band, and gusset, and seam; seam, and gusset, and band; till the heart is sick, and the brain 'benumbed, as well as the weary hand.

"Work! work! work! in 'the dull December light; and work! work! work! when the weather is warm and bright, while underneath the eaves the 'brooding swallows cling, as if to show their sunny backs, and twit me with the spring.

"Oh, but to breathe the breath of the cowslip and primrose sweet, with the sky above my head, and the grass beneath my feet; for only one short hour to feel as I used to feel, before I knew the woes of want, and the walk that costs a meal! Oh, but for one short hour! a 'respite however brief! No blessed 'leisure for love or hope, but only time for grief! A little weeping would ease my heart; but in their briny bed my tears must stop, for every drop hinders needle and thread."

With fingers weary and worn, with eyelids heavy and red, a woman sat in unwomanly rags, plying her needle and thread—Stitch ! stitch ! stitch ! in poverty, hunger, and dirt ; and still with a voice of dolorous pitch—would that its tone could reach the rich !—she sang this “ Song of the Shirt ! ” THOMAS HOOD.^(b)

bar'barous, uncivilized.
benumbed, stupefied.
brood'ing, rearing young.
dol'orous, sorrowful.
gus'set, insertion.

hun'ger, crav'ing for food.
la'bour, work.
lei'sure, spare time.
phan'tom, spect're.
ply'ing, working bus'ily.

pov'erty, in'digence.
res'pite, pause.
shad'ow, reflec'tion.
shat'tered, bro'ken.
ter'rible, horrible

LAND AND SEA BREEZES.

THE inhabitants of the sea-shore in tropical¹ countries wait every morning with 'impatience for the coming of the sea breeze. It usually sets in about ten o'clock. Then the sultry heat of the 'oppressive morning is 'dissipated, and there is a 'delightful freshness in the air, which seems to give new life to all for their daily labours. About sunset there is again another calm. The sea breeze is now over, and in a short time the land breeze sets in. This 'alternation of the land and sea breezes—a wind from the sea by day, and from the land by night—is so regular, in tropical countries, that it is looked for by the people with as much confidence as the rising and setting of the sun.

In extra-tropical² countries, especially those on the polar side of the trade-winds,³ these breezes blow only in summer and autumn ; for then only is the heat of the sun sufficiently intense to produce the 'requisite degree of atmospherical rarefaction⁴ over the land. This depends in a measure, also, on the 'character of the land upon which the sea breeze blows ; for when the surface is arid, and the soil barren, the heating power of the sun is exerted with most effect. In such cases the sea breeze amounts to a gale of wind.

In the summer of the southern hemisphere the sea breeze is more powerfully 'developed at Valparai'so⁵ than at any other place to which my services afloat have led me. Here regularly in the afternoon, at this season, the sea breeze blows 'furiously : pebbles are torn up from the walks and whirled about the streets ; people seek shelter ; business is 'interrupted, and all 'communication from the shipping to the shore is cut off. Suddenly the winds and the sea, as if they had again heard the voice of rebuke, are hushed, and there is a great calm.

The lull that follows is delightful. The sky is without a cloud; the atmosphere is 'transparency itself; the Andes⁶ seem to draw near; the climate, always mild and soft, becomes now doubly sweet by the contrast. The evening invites abroad, and the 'population sally forth—the ladies in ball costume, for now there is not wind enough to 'disarrange the lightest curl.

In the southern summer this change takes place day after day with the utmost 'regularity; and yet the calm always seems to surprise one, and to come before one has had time to realize that the furious sea wind could so soon be hushed. Presently the stars begin to peep out; timidly at first, as if to see whether the elements here below have ceased their strife, and whether the scene on Earth be such as they, from their bright spheres aloft, may shed their sweet influences upon.

Alone in the night-watch, after the sea breeze had sunk to rest, I have stood on the deck under those beautiful skies, gazing, admiring, rapt. I have seen there, above the horizon at the same time, and shining with a 'splendour unknown to northern latitudes, every star of the first magnitude—save only six—that is contained in the 'catalogue of the one hundred principal fixed stars of astronomers. There lies the city on the sea-shore, wrapped in sleep. The sky looks solid, like a vault of steel set with diamonds! The stillness below is in harmony with the silence above; and one almost fears to speak, lest the harsh sound of the human voice, 'reverberating through those vaulted "chambers of the south," should wake up echo, and drown the music that fills the soul.

Within the tropics the land and sea breezes are more gentle; and though the night scenes there are not so 'suggestive as those just described, yet they are exceedingly delightful, and altogether lovely. The oppressive heat of the sun is 'mitigated, and the climate of the sea-shore is made both refreshing and healthful, by the alternation of those winds, which 'invariably come from the cooler place;—from the sea, which is the cooler by day; and from the land, which is the cooler by night.

About ten in the morning the heat of the sun has played upon the land with sufficient 'intensity to raise its temperature above that of the water. A portion of this heat being imparted to the air above it, causes it to rise; when the air, first from the beach, then from the sea, to the distance of several miles, begins to flow in with a most delightful and 'invigorating freshness.

When a fire is kindled on the hearth, we may see, if we

observe the motes floating in the room, that those nearest to the chimney are the first to feel the draught and to obey it—they are drawn into the blaze. The circle of inflowing air is gradually enlarged, until it is scarcely perceived in the remote parts of the room. Now, the land is the hearth; the rays of the sun the fire; and the sea, with its cool and calm air, the room: and thus have we at our firesides the sea breeze in miniature.

When the sun goes down the fire ceases; then the dry land 'commences to give off its surplus' heat by radiation, so that by dew-fall it and the air above it are cooled below the sea temperature. The 'atmosphere on the land thus becomes heavier than that on the sea, and, consequently, there is a wind sea-ward, which we call the land breeze.

MAURY. (2)

alterna'tion, in'terchange; succe'ssion.
at'mosphere, air.
cat'alogue, list; enumera'-
char'acter, na'ture. [tion
commen'ces, begins.
communica'tion, in'ter-
course.
delight'ful, deli'cious.
devel'oped, exhib'ited.

disarrange', ruf'fle.
dis'sipated, driven off.
fu'riously, vi'olently; ve'-
hemently.
impa'tience, ea'gerness.
inten'sity, power.
interrupt'ed, suspend'ed.
inva'riably, uni'formly.
invig'orating, strength'en-
mit'igated, soft'ened. [ing.

oppres'sive, overpow'ering.
popula'tion, inhab'itants
regula'rity, punctual'ity.
req'uisite, nec'essary.
rever'berating, ech'oi'ng;
resound'ing.
splen'dour, magnificence.
sugges'tive, significant;
expres'sive.
transpa'rency, clear'ness.

¹ Trop'ical countries, countries between the tropics, or within the torrid zone. The *tropics* [Gr. *trepo*, I turn] are the parallels of latitude drawn through the points in the ecliptic at which the sun appears to turn in his course.

² Ex'tra-tropical, immediately beyond the tropics, north or south.

³ Trade-winds, constant winds that blow in the tropical regions of the great oceans, especially of the Atlantic, where they are most regular. Currents of cold air are always flowing from the poles to the equator, to supply the place of the hot air which rises there from the surface of the globe. If the globe were at rest, these would be due north and south winds; but as the globe turns from west to east more quickly than the surrounding air,

these lagging currents become a north-east and a south-east wind respectively. They are called "trade-winds" because of their great advantage to navigators in sailing from east to west.

⁴ Rarefac'tion, the distending or separating of the atoms of the atmosphere, which makes it lighter, and therefore causes it to rise. The air from the sea then rushes in to fill its place.

⁵ Valpara'iso (*Valpah-ri-so*), "Vale of Paradise," the chief sea-port of Chili, on the west of South America.

⁶ Andes, the great mountain chain of South America. They "seem to draw near," because the clearness of the atmosphere makes them appear nearer.

⁷ Sur'plus, *lit.* overmuch; more than enough.

QUESTIONS.—Where do the sea and the land breezes blow with the greatest regularity? When does the sea breeze set in? When does the land breeze? When do these breezes blow in extra-tropical countries? Where has the writer seen the sea breeze most powerfully developed? By what is it followed there? What is the character of these breezes within the tropics? What is their effect upon the climate? What is the cause of their alternation? Illustrate this by a fire on a hearth?

HOW THEY BROUGHT THE GOOD NEWS FROM GHENT¹ TO AIX.²

I SPRANG to the stirrup, and Joris, and he ;
I galloped, Dirck galloped, we galloped all three :
"Good speed !" cried the watch, as the gate-bolts undrew ;
"Speed !" echoed the wall to us galloping through :
Behind shut the 'postern, the lights sank to rest,
And into the midnight we galloped abreast.

Not a word to each other ; we kept the great pace
Neck by neck, stride by stride, never changing our place :
I turned in my saddle and made its girths tight,
Then shortened each stirrup, and set the pique right,
Rebuckled the cheek-strap, chained slacker the bit,
Nor galloped less 'steadily Roland a whit.

It was moonset at starting ; but while we drew near
Lokéren³ the cocks crew, and twilight dawned clear ;
At Boom³ a great yellow star came out to see ;
At Düffeld³ 'twas morning as plain as could be ;
And from Mech'elu³ church-steeple we heard the half-chime,
So Joris broke silence with, "Yet there is time !"

At Aer'schot³ up leaped of a sudden the sun,
And against him the cattle stood black every one,
To stare through the mist at us galloping past :
And I saw my stout galloper, Roland, at last,
With 'resolute shoulders, each 'butting away
The haze, as some bluff river headland its spray ;

And his low head and crest, just one sharp ear bent back
For my voice, and the other 'pricked out on his track ;
And one eye's black 'intelligence—ever that glance
O'er its white edge at me, his own master, 'askance !
And the thick heavy 'spume-flakes which aye and anon
His fierce lips shook upwards ~~in~~ galloping on.

By Has'selt³ Dirck groaned ; and cried Joris, "Stay spur !
Your Roos⁴ galloped bravely, the fault's not in her,
We'll remember at Aix ;"²—for one heard the quick wheeze
Of her chest, saw the stretched neck, and 'stagging knees,
And sunk ~~tail~~, and 'horrible heave of the flank,
As down on her haunches she shuddered and sank

So we were left galloping, Joris and I,
Past Looz³ and past Ton'gres,³ no cloud in the sky ;
The broad sun above laughed a 'pitiless laugh,
'Neath our feet broke the 'brittle bright stubble like chaff ;
Till over by Dal'hem³ a dome-spire sprang white,
And "Gallop," gasped Joris, "for Aix is in sight !"

"How they'll greet us!"—and all in a moment his roan
 Rolled neck and croup over, lay dead as a stone;
 And there was my Roland to bear the whole weight
 Of the news which alone could save Aix from her fate,
 With his nostrils like pits full of blood to the brim,
 And with circles of red for his eye-sockets' rim.

Then I cast loose my buff-coat, each 'holster let fall,
 Shook off both my jack-boots, let go belt and all;
 Stood up in the stirrup, leaned, patted his ear,
 Called my Roland his pet-name, my horse without peer;
 Clapt my hands, laughed and sang, any noise, bad or good,
 Till at length into Aix Roland galloped and stood!

And all I 'remember is friends flocking round,
 As I sat with his head 'twixt my knees on the ground;
 And no voice but was 'praising this Roland of mine,
 As I poured down his throat our last 'measure of wine,
 Which (the 'burgesses voted by common consent)
 Was no more than his due who brought good news from Ghent

ROBERT BROWNING.⁽²⁾

askance', side'ways.
 brittle, fragile.
 bur'gesses, mag'istrates.
 butt'ing, thrust'ing.
 hól'ster, pistol-case.
 horrible, terrible.

intel'ligence, know'ing-
 ness.
 meas'ure, por'tion; gob'let.
 piti'less, mer'ciless.
 post'ern, small gate.
 prais'ing, extoll'ing.

pricked, point'ed.
 remem'ber, recollect'.
 res'olute, deter'mined.
 spume'-flakes, foam'-flecks.
 stag'gering, tot'tering.
 stead'ily, reg'ularly.

¹ Ghent (*Gent*,—*g* hard), the chief town in East Flanders, Belgium.

² Aix — Aix-la-Chapelle — a town in Rhenish Prussia, near the Belgian frontier; called in German *Aachen*. It was the birth-place of Charlemagne, and the capital of his empire.

³ Loké'ren (*Lok-é'-ren*), a town in East Flanders, Belgium. This and the other

towns mentioned in the poem are on the route from Ghent to Aix-la-Chapelle, in the order in which they occur:—**Boom**, Dúf'feld (*Díf'-feld*), Mech'eln (*Mek'-lin*), Aer'schot (*Air'-shot*), Has'selt, Looz (*Lóze*, rhyming with *rose*), Ton'gres (*Tong'-gers*), Dál'hem (*Dá'-lem*, *a* as in *fár*).

⁴ Roos (*Rōās*), his horse. The German for horse is *ross*.

THE RELIEF OF LEYDEN.

A.D. 1574.

THE besieged city¹ was at its last gasp. The burghers had been in a state of 'uncertainty for many days; being aware that the fleet had set forth for their relief, but knowing full well the thousand obstacles which it had to 'surmount. They had guessed its progress by the illumination from the blazing villages; they had heard its salvos of artillery on its arrival at North Aa; but since then all had been dark and mournful again,

hope and fear, in sickening alternation, 'distracting every breast. They knew that the wind was unfavourable, and at the dawn of each day every eye was turned 'wistfully to the vanes of the steeples. So long as the easterly breeze prevailed, they felt, as they anxiously stood on towers and house-tops, that they must look in vain for the welcome ocean.

Yet, while thus patiently waiting, they were literally starving; for even the misery endured at Haar'lem² had not reached that depth and 'intensity of agony to which Ley'den was now reduced. Bread, malt-cake, horse-flesh, had entirely disappeared; dogs, cats, rats and other vermin, were esteemed luxuries. A small number of cows, kept as long as possible for their milk, still remained; but a few were killed from day to day, and 'distributed in minute portions, hardly sufficient to support life, among the famishing population. Starving wretches swarmed daily around the shambles where these cattle were slaughtered, contending for any morsel which might fall, and lapping eagerly the blood as it ran along the pavement; while the hides, chopped and boiled, were greedily devoured.

Women and children, all day long, were seen searching gutters and dunghills for morsels of food, which they 'disputed fiercely with the famishing dogs. The green leaves were stripped from the trees, every living herb was converted into human food; but these expedients could not avert starvation. The daily 'mortality was frightful. Infants starved to death on the maternal breasts which famine had parched and withered; mothers dropped dead in the streets, with their dead children in their arms.

In many a house the watchmen, in •their rounds, found a whole family of corpses—father, mother, children—side by side; for a disorder called "the Plague," naturally 'engendered of hardship and famine, now came, as if in kindness, to abridge the agony of the people. Pestilence stalked at noonday through the city, and the doomed inhabitants fell like grass beneath his scythe. From six thousand to eight thousand human beings sank before this scourge alone; yet the people resolutely held out, women and men mutually encouraging each other to resist the entrance of their foreign foe³—an evil more horrible than pest or famine.

Leyden was sublime in its despair. A few murmurs were, however, occasionally heard at the steadfastness of the magistrates; and a dead body was placed at the door of the burgo-master, as a silent witness against his 'inflexibility. A party

of the more faint-hearted even assailed the heroic Adrian Van der Werf⁴ with threats and reproaches as he passed along the streets. A crowd had gathered around him as he reached a triangular place in the centre of the town, into which many of the principal streets emptied themselves, and upon one side of which stood the church of St. Pancras.

There stood the burgomaster, a tall, haggard, imposing figure, with dark visage and a tranquil but commanding eye. He waved his broad-leaved felt hat for silence, and then exclaimed, in language which has been almost literally preserved, "What would ye, my friends? Why do ye murmur that we do not break our vows and surrender the city to the Spaniards?—a fate more horrible than the agony which she now endures! I tell you I have made an oath to hold the city; and may God give me strength to keep my oath! I can die but once, whether by your hands, the enemy's, or by the hand of God. My own fate is indifferent to me; not so that of the city intrusted to my care. I know that we shall starve if not soon relieved; but starvation is preferable to the dishonoured death which is the only alternative. Your menaces move me not. My life is at your disposal. Here is my sword; plunge it into my breast, and divide my flesh among you. Take my body to appease your hunger, but expect no surrender so long as I remain alive.".....

On the 28th of September a dove flew into the city, bringing a letter from Admiral Boisot.⁵ In this despatch the position of the fleet at North Aa was described in encouraging terms, and the inhabitants were assured that, in a very few days at furthest, the long-expected relief would enter their gates.

The tempest came to their relief. A violent equinoctial gale, on the night of the 1st and 2nd of October, came storming from the north-west, shifting after a few hours fully eight points, and then blowing still more violently from the south-west. The waters of the North Sea were piled in vast masses upon the southern coast of Holland, and then dashed furiously landward, the ocean rising over the earth and sweeping with unrestrained power across the ruined dikes. In the course of twenty-four hours the fleet at North Aa, instead of nine inches, had more than two feet of water.....

On it went, sweeping over the broad waters. As they approached some shallows which led into the great Mere, the Zealanders dashed into the sea, and with sheer strength shouldered every vessel through!

It was resolved that a sortie, in conjunction with the opera-

tions of Boisot, should be made against Lam'men⁶ with the earliest dawn. Night descended upon the scene—a pitch-dark night, full of anxiety to the Spaniards, to the Arma'da, to Leyden. Strange sights and sounds occurred at different moments to bewilder the anxious sentinels. A long procession of lights issuing from the fort was seen to flit across the black face of the waters, in the dead of night; and the whole of the city wall between the Cowgate and the town of Burgundy fell with a loud crash. The horror-struck citizens thought that the Spaniards were upon them at last; the Spaniards imagined the noise to indicate a desperate sortie of the citizens. Everything was vague and mysterious.

Day dawned at length after the feverish night, and the admiral prepared for the assault. Within the fortress reigned a death-like stillness, which inspired a sickening suspicion. Had the city indeed been carried in the night? had the massacre already commenced? had all this labour and audacity been expended in vain?

Suddenly a man was descried wading breast-high through the water from Lammen towards the fleet, while at the same time one solitary boy was seen to wave his cap from the summit of the fort. After a moment of doubt, the happy mystery was solved. The Spaniards had fled panic-struck during the darkness. Their position would still have enabled them, with firmness, to frustrate the enterprise of the patriots; but the hand of God, which had sent the ocean and the tempest to the deliverance of Leyden, had struck her enemies with terror likewise.

The lights which had been seen moving during the night were the lanterns of the retreating Spaniards; and the boy who was now waving his triumphant signal from the battlements had alone witnessed the spectacle. So confident was he in the conclusion to which it led him, that he had volunteered at day-break to go thither alone.

The magistrates, fearing a trap, hesitated for a moment to believe the truth; which soon, however, became quite evident. Val'dez,⁷ flying himself from Ley'derdp, had ordered Colonel Borgia to retire with all his troops from Lammen.

Thus the Spaniards had retreated at the very moment that an extraordinary accident had laid bare a whole side of the city for their entrance! The noise of the wall as it fell only inspired them with fresh alarm; for they believed that the citizens had sallied forth in the darkness to aid the advancing flood in the work of destruction.

All obstacles being now removed, the fleet of Boisot swept by Lammen, and entered the city on the morning of the 3rd of October. Leyden was relieved!¹⁸

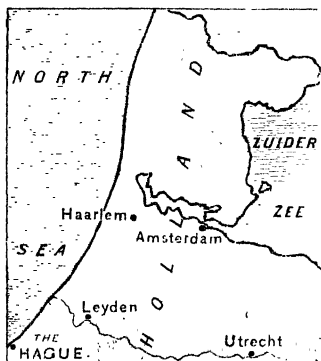
J. L. MOTLEY.⁽²⁾

ease', sat'isfy.
ac'ty, dā'ring.
bewil'der, perplex'.
conjunc'tion, combina'tion.
deliv'erance, relief.
disput'ed, contend'ed for.
distract'ing, torment'ing.
distrib'uted, dispensed'.
engendered, produced'.
extraor'dinary, remark'-
able.

fu'riously, vi'olently.
imag'ined, fancied.
indif'ferent, immate'rial.
inflexibil'ity, pertinac'ity.
inspired', suggest'ed.
inten'sity, extrem'ity.
mas sacre, but'chery.
mortal'ity, death'-rate.
myste'rious, incomprehen'-
sible.
ob'stacles, hin'drances.

occurred', happen'ed.
pan'ic-struck, terrif'ied.
preferable, more to be
wished.
spec'tacle, sight.
sum'mit, highest point.
surmount', overcome'.
tran'quil, calm.
uncer'tainty, doubt.
unrestrained', unchecked'
wist'fully, long'ingly.

¹ The besieged city,—Leyden, now a flourishing manufacturing town of South Holland. It was besieged by the Spaniards when they tried to subdue the Netherlands under their yoke. The siege began



on 31st October 1573, and ended on 3rd October 1574. It was relieved by the dikes being cut, and the sea let in on the Spanish works. Fifteen hundred Spaniards were slain or drowned.

² At Haarlem.—“Frederick, the son of

Alva, starved the little garrison of Haarlem (20 miles north of Leyden) into a surrender (1573); and then, enraged at the gallant defence they had made, butchered them without mercy. When the executioners were worn out with their bloody work, he tied the three hundred citizens that remained back to back, and flung them into the sea.”—COLLIER'S *Great Events of History* (Nelson's Series).

³ Foreign foe, the Spaniards.

⁴ Adrian Van der Werf, the burgo-master, or chief magistrate of Leyden.

⁵ Admiral Boisot, the commander of the Dutch fleet.

⁶ Lammen, a fort occupied by the Spaniards, which formed the sole remaining obstacle between the fleet and the city. It swarmed with soldiers, and bristled with cannon; and so serious an impediment did Boisot consider it, that he wrote that very night in desponding terms regarding it to the Prince of Orange.

⁷ Valdez, the Spanish commander. His head-quarters were at Leyderdorp, a mile and a half to the right of Lammen.

⁸ Leyden was relieved.—The University of Leyden was erected as a memorial of this gallant defence and happy deliverance. The relief of Leyden was a fatal blow to Spanish power in the Netherlands.

QUESTIONS.—What means did the burghers of Leyden know were being taken to relieve them? What was unfavourable to the advance of the fleet? In what condition were the citizens at this time? What added its horrors to those of famine? Whom did some of the faint-hearted assail? How did he address the people? What news arrived on the 28th of September? What at last came to their relief? What did the citizens resolve upon, on the night of the 2nd October? What strange sight occurred during the night? What strange sound was heard? By what was it caused? What had the Spaniards supposed it to be? What were the lights which had been seen moving? Who was the only occupant of Lammen visible in the morning? When was Leyden relieved?

THE GLOVE AND THE LIONS.

KING FRANCIS was a 'hearty king, and loved a royal sport; and one day, as his lions fought, sat looking on the court. The nobles filled the benches round, the ladies by their side; and amongst them sat the Count de Lorge, with one for whom he sighed: and truly it was a 'gallant thing to see that crowning show—'valour and love, and a king above, and the royal beasts below.

'Ramped and roared the lions, with horrid laughing jaws. They bit, they glared, gave blows like beams, a wind went with their paws. With 'wallowing might and 'stified roar they rolled on one another, till all the pit with sand and mane was in a 'thunderous smother. The bloody foam above the bars came whizzing through the air; said Francis then, "Truth, gentlemen, we are better here than there!"

De Lorge's love o'erheard the king—a 'beauteous lively dame, with smiling lips and sharp bright eyes, which always seemed the same. She thought, "The count, my lover, is as brave as brave can be: he surely would do 'wondrous things to show his love of me.—King, ladies, lovers, all look on; the 'occasion is 'divine! I'll drop my glove, to prove his love; great glory will be mine!"

She dropped her glove to prove his love, then looked at him and smiled: 'he bowed, and in a 'moment leaped among the lions wild. The leap was quick, return was quick; he had 'regained his place: then threw the glove—but not with love—right in the lady's face!

"In truth," cried Francis, "rightly done:" and he rose from where he sat. "Not love," 'quoth he, "but 'vanity, sets love a task like that!"

LEIGH HUNT.^(b)

beau'teous, love'ly.
divine', heaven'ly.
gal'lant, splen'did.
heart'y, jo'vial.
mo'ment, in'stant.

occa'sion, opportu'nity.
quoth, said.
ramped, bound'ed.
regain'd', resum'd'.
stif'led, smoth'ered.

thun'derous, nois'y.
val'our, bra'very.
van'ity, idle show.
wal'lowing, floun'dering.
won'drous, aston'ishing.

DESPISED OLD AGE.

I HAVE lived long enough: my way of life
Is fallen into the sear, the yellow leaf;
And that which should accompany old age,
As honour, love, obedience, troops of friends,
I must not look to have; but in their stead,
Curses, not loud, but deep,—mouth-honour, breath,
Which the poor heart would fain deny, but dare not.

SHAKESPEARE.

THE POLAR WORLD.

PART I.

LET us imagine ourselves elevated above the region of the North Pole to a height sufficient to enable us to take in at one view the whole Arctic Circle. What we should see immediately beneath us cannot be certainly affirmed. Probably it would be the open Polar Sea discovered by Dr. Hayes of Kane's Expedition, in 1853. If the view adopted by most geographers be correct, there rolls around the Pole a sea about twelve hundred miles in breadth, abounding in animal life, and kept free from ice during a great part of the year by the influence of equatorial waters, which reach it by way of Spitzbergen and Nova Zembla. But beyond this unexplored region we should see three distinct zones, forming what are called the Arctic Regions,—an icy barrier, treeless wastes, and vast forests.

The belt of ice which girdles the Polar Sea, if not the Pole itself, has been the scene of many a deadly struggle between man and the frost-king, who reigns supreme in these inhospitable regions. To force a passage across or through this barrier has been the life-dream of many a heroic explorer; and hundreds of brave men have perished in making the attempt. The most northerly points yet reached by man are still 600 miles from the Pole. Only on two or three occasions has he penetrated thus far,—so great are the dangers to be encountered, so difficult is it to procure food, and so intense is the cold. Within the whole Arctic Circle, and in the interior of Asia and America even beyond it, the average winter temperature ranges from 50° to 60° below the freezing point of water, and during a great part of the year converts mercury into a solid body.¹ But at the remote points to which man has penetrated in the northern ice-zone, the spirit-thermometer has been known to fall as low as 90° , and even 100° , below the point at which water freezes! It may well be asked how man is able to bear these excessively low temperatures, which must seem appalling to an inhabitant of the temperate zone. But thick fur clothing; a hut small and low, where the warmth of a stove, or simply of an oil-lamp, is husbanded in a narrow space; above all, the wonderful power of the human constitution to adapt itself to every change of climate, go far to counteract the rigour of the cold.

The treeless zone, called "the barren-grounds," or simply "the barrens," extends southward from the ice-bound shores of the



THE DESERT OF ICE.

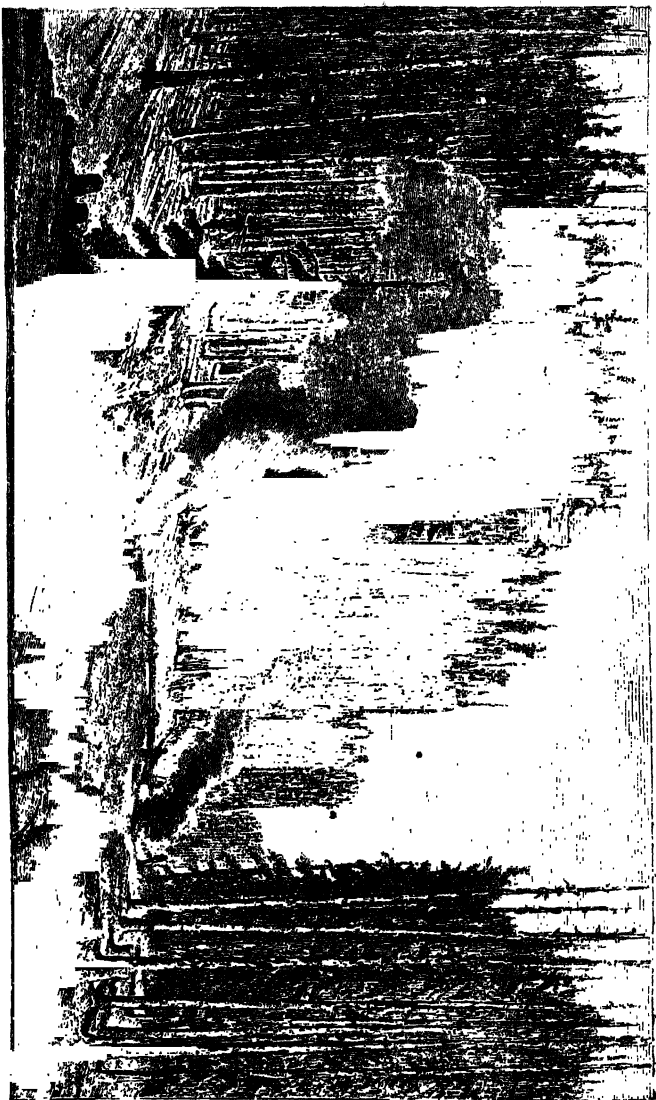
polar seas, and gradually merges into the forest-region, where it is encircled by a garland of evergreen. The want of trees in this region is caused not so much by its high northern latitude as by the cold sea-winds which sweep unchecked over the islands and the flat coast-lands of the Polar Ocean, and for miles and miles compel even the hardiest plant to crouch before the blast and creep along the ground. Nothing can be more melancholy than the aspect of the boundless morasses or arid wastes of the barrens of Siberia. Dingy mosses and gray lichens form the chief vegetation; and a few scanty grasses and dwarfish flowers that may have found a refuge in some more sheltered spot are not sufficient to relieve the dull monotony of the scene.

In winter, when animal life has mostly retreated to the south, or sought a refuge in burrows and in caves, an awful silence, interrupted only by the hooting of a snow-owl or the yelping of a fox, reigns over this vast expanse; but in spring, when the brown earth reappears from under the melted snow, and the swamps begin to thaw, enormous flights of wild-birds return to the scene, and enliven it for a few months. An admirable instinct leads those winged legions from distant climes to the Arctic wildernesses, where, in the morasses and lakes, on the banks of the rivers, on the flat strands, and along the fish-teeming coasts, they find abundance of food; and where, at the same time, they can with greater security build their nests and rear their young. Some remain on the skirts of the forest-region; others, flying farther northward, lay their eggs upon the naked wastes.

Eagles and hawks follow the traces of the swimming- and strand-birds; troops of ptarmigans² roam among the stunted bushes; and when the sun shines, the finch or the snow bunting warbles his merry note.

While thus the warmth of summer attracts hosts of migratory birds to the Arctic wildernesses, shoals of salmon and sturgeons enter the rivers, in obedience to the instinct that forces them to quit the seas and to swim up the streams, for the purpose of depositing their spawn in the tranquil sweet waters of the river or lake. About this time, also, the reindeer leaves the forests, to feed on the herbs and lichens of the barrens; and to seek along the shores, fanned by the cool sea-breeze, some protection against the attacks of the stinging flies that arise in myriads from the swamps.

Thus during several months the barrens presents an animated



THE FOREST-REGION OF THE NORTH.

scene, in which man also plays his part. The birds of the air, the fishes of the water, the beasts of the earth, are all obliged to pay their tribute to his various wants—to 'appease his hunger, to clothe his body, or to gratify his greed of gain.

But as soon as the first frosts of September 'announce the approach of winter, all animals, with but few exceptions, hasten to leave a region where the sources of life must soon fail. The geese, ducks, and swans return in dense flocks to the south; the strand-birds seek in some lower latitude a softer soil which allows their sharp beaks to seize a 'burrowing prey; the water-fowl forsake the bays and channels that will soon be blocked up with ice; the reindeer once more return to the forest; and in a short time nothing is left that can induce man to prolong his stay in the treeless plain. Soon a thick mantle of snow covers the hardened earth, the frozen lake, the ice-bound river; and conceals them all—for seven, eight, nine months at a time—under its monotonous pall, except where the furious north-east wind sweeps it away and lays bare the naked rock.

This snow, which, after it has once fallen, 'persists until the long summer day has 'effectually thawed it, protects in an admirable manner the vegetation of the higher latitudes against the cold of the long winter season. Thanks to this protection, and to the influence of a sun which for three or four months together circles above the horizon,³ and in favourable 'localities calls forth the powers of vegetation in an 'incredibly short time, even Washington, Grinnell Land,⁴ and Spitzbergen are able to boast of flowers.

The Arctic forest-regions are of still greater extent than the vast treeless plains which they encircle. When we consider that they form an almost continuous belt, stretching across three fourths of the world, in a breadth of from one thousand to fourteen hundred miles, even the woods of the Amazon, which cover a surface fifteen times greater than that of the British Isles, shrink into comparative 'insignificance. Unlike the tropical forests, which are characterized by an endless variety of trees, these northern woods are almost entirely composed of cone-bearers, and one single kind of fir or pine often covers an immense extent of ground.

Another peculiarity of these forests is their apparent youth. This is sufficiently explained by the shortness of the summer, which, though able to bring forth new shoots, does not last long enough for the formation of wood. Hence the growth of trees becomes slower and slower the farther north they are found.

A third distinctive feature of the Arctic forests is their harmless character. There the traveller finds no poisonous plants; even thorns and prickles are rare. No venomous snake glides through the thicket, no crocodile lurks in the swamp. Even their beasts of prey—the bear, the lynx, the wolf—are less dangerous and blood-thirsty than the dreaded monsters of the torrid zone.

abund'ance, plen'ty.
announc'e, in'timate.
appeas'e, assuag'e.
bur'rowing, min'ing.
convert's, transform's.
counteract', check.
depos'iting, plac'ing.
distinc'tive, characteris'tic.
effec'tually, thor'oughly.
el'euated, raised.

enor'mous, vast.
exces'sively, extreme'ly.
geog'raphers, writers on
geography.
incred'ibly, not to be be-
lieved.
inhos'pitable, unfriend'ly.
insignif'icance, unimport'-
ance.
interrupt'ed, brö'ken.

lat'itude, distance from the
equator.
local'ities, dist'icts.
mel'ancholy, sad'dening.
mig'ratory, wan'dering.
morass'es, marsh'es.
pen'etrated, advanced'.
persists', lasts.
unexplored', not searched.
ven'omous, poi'sonous.

¹ Mercury into a solid body. — The fact that mercury freezes at 39° below zero, makes spirit thermometers preferable for use in high latitudes. (See lesson on *The Thermometer*, p. 180.)

² *Parmigan* (*tar'megan*), a bird of the grouse family, called, from the colour of its wings and breast, the white grouse. Its legs are feathered to the toes. It frequents lofty mountains, as those of Scandinavia and Scotland. It is not found in England.

³ Above the horizon. — During summer in the northern hemisphere there is around the North Pole—then leaning towards the

sun—a region, varying in extent from day to day, within which, for many weeks together, the sun never sinks below the horizon. Then the polar regions enjoy perpetual day. During winter, in the same regions, the sun never rises above the horizon for many weeks together. Then these regions are subject to perpetual night.

⁴ Washington, Grinnell Land. — The former, the extreme north-west of Greenland, adjoining the open sea of Kane or Hayes; the latter west of the former, and separated from it by Kennedy Channel, a continuation of Baffin Bay.

QUESTIONS — What probably rolls around the North Pole? Who discovered that sea? What is its probable breadth? Name the three zones of the Arctic regions. Of what has the belt of ice been the scene? How far has man penetrated into it? What is the average winter temperature within the Arctic Circle? How low has the thermometer been known to fall in the extreme north? How is man able to bear these low temperatures? What is the treeless zone called? By what is the want of trees there caused? What forms the chief vegetation there? What causes its awful silence in winter? When do the birds return? What has attracted them? What birds of prey follow the sea-fowl? With what do the rivers at the same time swarm? What leads the reindeer to the sea-shore? What leads man also into that region in summer? When do the animals again migrate southward? Of what use is the snow in these high latitudes? Why is the sun's influence so great there in summer? What is the extent of the Arctic forest regions? Compare their extent with that of the woods of the Amazon. Wherein do they differ in character from tropical woods? How is their apparent youth accounted for? What is meant by their harmless character?

THE BELLS.

HEAR the sledges with the bells—silver bells!¹ What a world of ‘merriment their ‘melody foretells! How they tinkle, tinkle, tinkle, in the icy air of night! while the stars, that oversprinkle all the heavens, seem to twinkle with a ‘crystalline delight; keeping time, time, time, in a sort of Runic rhyme,² to the ‘tintinnabulation that so musically wells from the bells, bells, bells, bells, bells, bells, from the jingling and the tinkling of the bells.

Hear the ‘mellow wedding bells—golden bells!³ What a world of happiness their ‘harmony foretells! Through the balmy air of night how they ring out their delight! From the molten-golden notes, and all in tune, what a liquid ditty floats to the turtle-dove that listens, while she gloats on the moon! Oh, from out the sounding cells what a gush of ‘euphony ‘voluminously wells! How it swells, how it dwells on the future! How it tells of the ‘rapture that impels to the swinging and the ringing of the bells, bells, bells, of the bells, bells, bells, bells, bells, bells, bells—to the rhyming and the chiming of the bells!

Hear the loud ‘alarum bells—brazen bells!⁴ What a tale of terror, now, their ‘turbulency tells! In the startled ear of night how they scream out their affright! Too much ‘horried to speak, they can only shriek, shriek, out of tune; in a ‘clamorous appealing to the mercy of the fire, in a mad ‘expostulation with the deaf and ‘frantic fire, leaping higher, higher, higher, with a resolute ‘endeavour now—now to sit or never, by the side of the pale-faced moon. Oh, the bells, bells, bells! what a tale their terror tells of despair! How they clang, and clash, and roar! What a horror they outpour on the bosom of the ‘palpitating air! Yet the ear it fully knows, by the twanging and the clanging, how the danger ebbs and flows: yet the ear distinctly tells, in the jangling and the ‘wrangling, how the danger sinks and swells, by the sinking or the swelling in the anger of the bells, of the bells, of the bells, bells, bells, bells, bells, bells, bells—in the clamour and the ‘clagour of the bells!

Hear the tolling of the bells—iron bells!⁵ What a world of solemn thought their ‘monody compels! In the silence of the night how we shiver with affright at the melancholy ‘menace of their tone; for every sound that floats from the rust within their throats is a groan. And the people—ah, the people—they that dwell up in the steeple all alone, and who, tolling, tolling,

tolling, in that muffled 'monotone, feel a glory in so rolling on the human heart a stone—they are neither man nor woman—they are neither brute nor human—they are Ghouls!⁶ And their king it is who tolls; and he rolls, rolls, rolls, rolls a 'pæan from the bells! And his merry bosom swells with the pæan of the bells! And he dances and he yells; keeping time, time, time, in a sort of Runic rhyme, to the pæan of the bells—of the bells: keeping time, time, time, in a sort of Runic rhyme, to the throbbing of the bells—of the bells, bells, bells—to the sobbing of the bells; keeping time, time, time, as he knells, knells, knells, in a happy Runic rhyme, to the rolling of the bells—of the bells, bells, bells—to the tolling of the bells, of the bells, bells, bells, bells, bells, bells—to the moaning and the groaning of the bells.

EDGAR ALLAN POE.

alā'rūm, warn'ing.	fran'tic, fu'rious.	mon'otone, unva'ried sound
clam'orous, vocif'erous.	har'mony, musical con'cord	pæ'an, song of tri'umph.
clan'gour, harsh'ness. [ling.	hor'rifed, ter'rifed	pal'pitating, throbb'ing.
crys'talline, clear, spark-	mel'low, rich.	rap'ture, delight'. [ling.
endeav'our, attempt'.	mel'ody, sweet sound.	tintinnabula'tion, tink-
eu'phony, pleas'ant sound.	men'ace, threat.	tur'bulency, tu'mult.
expostula'tion, remon'-	mer'riment, rejoic'ing.	volu'minously, co'piously.
strance.	mon'ody, lament.	wra'n'gling, ja'n'gling.

¹ **Silver bells.**—It is the purpose of the poem not only to describe, but also to imitate the characters of the different bells referred to. The verse is thus made to echo the various sounds successively. The silver sledge bells heard in the frosty air have a sharp and clear tinkling sound, suggestive of merriment.

² **Runic rhyme.**—*Runes*, the name of the peculiar characters of the old Teutonic and Scandinavian alphabets, is also applied to Gothic verses or rhymes. Their peculiarity is, that the lines are very short, so that the rhymes—whether head-rhyme (alliteration) or tail-rhyme—follow one another in quick succession, like the peals of bells. This is what is meant by *Runic rhyme*,—words which are themselves an example of alliteration.

³ **Golden bells.**—The mellow wedding bells express present rapture, and foretell a world of happiness. The sledge bells

make *melody*—that is, a succession of sweet sounds; but the wedding bells make *harmony*, or the sweet agreement of different notes sounded together,—a “concord of sweet sounds.”

⁴ **Brazen bells.**—These are the bells that startle the sleepers in the night with the alarm of fire. Their tale of terror is screamed out in a wildly clamorous clash and roar; and this is well imitated in the turbulence of the verse.

⁵ **Iron bells.**—This is the “passing bell,” or knell, tolled at the hour of death, or immediately thereafter. Its character is that of a monody, or song of lamentation—solemn and mournful.

⁶ **Ghouls** (*gools*), demons in Eastern fable, who were supposed to prey upon human bodies. What is to mankind a melancholy, dirge-like roll, is to them, therefore, a joyful pæan or song of triumph, which makes them dance and yell with delight.

THE POLAR WORLD.

PART II.

THOUGH nature generally wears a more stern and forbidding aspect on advancing towards the Pole, yet the high latitudes have many beauties of their own. Nothing can exceed the 'magnificence of an Arctic sunset, clothing the snow-clad mountains and the skies with all the glories of colour; or be more serenely beautiful than the clear star-lit night, illumined by the brilliant moon, which for days continually circles around the horizon, never setting until she has run her long course of brightness. The uniform whiteness of the landscape and the general 'transparency of the atmosphere add to the lustre of her beams, which serve to guide the natives in their nomadic life, and to lead them to their hunting-grounds.

A number of icebergs floating in the sea—a familiar scene in polar regions—is one of the most magnificent 'spectacles in nature. But the wonderful beauty of these 'crystal cliffs never appears to greater advantage than when clothed by the midnight sun¹ with all the splendid colours of twilight. In the distance, they seem like masses of 'burnished metal or solid flame. Nearer at hand, they are like huge blocks of purest marble inlaid with pearl and opal gems. Thousands of sparkling little cascades leap into the sea from their sides, the water being discharged from lakes of melted snow and ice that repose in the quietude of their valleys.

But of all the magnificent spectacles that relieve the monotonous gloom of the Arctic winter, there is none to equal the magical beauty of the Aurora.² Night covers the snow-clad earth; the stars glimmer feebly through the haze which so frequently dims their 'brilliancy in the high latitudes, when suddenly a broad and clear bow of light spans the horizon in the direction where it is traversed by the magnetic meridian.³ This bow sometimes remains for several hours, heaving or waving to and fro, before it sends forth streams of light toward the zenith. Sometimes these flashes proceed from the bow of light alone; at others they 'simultaneously shoot forth from many opposite parts of the horizon, and form a vast sea of fire, whose brilliant waves are continually changing their position. Finally they all unite in a magnificent crown or cupola of light, with the appearance of which the 'phenomenon attains its highest degree of splendour.

The brilliancy of the streams, which are commonly red at their base, green in the middle, and light yellow towards the zenith, increases, and at the same time they dart with greater vivacity athwart the skies. The colours are wonderfully transparent; the red approaching to a clear blood-red, the green to a pale 'emerald tint. On turning from the flaming 'firmament to the earth, this also is seen to glow with a magical light. The dark sea, black as jet, forms a striking contrast to the white snow plain or the distant ice mountain: all the outlines tremble as if they belonged to the unreal world of dreams. The 'imposing silence of the night heightens the charms of the magnificent spectacle.

But gradually the crown fades; the bow of light dissolves; the streams become shorter, less frequent, and less vivid; and finally the gloom of winter once more descends upon the northern desert.

In these desolate regions, which are winter-bound during the greater part of the year, man, elsewhere the lord of the Earth, plays but an insignificant part. He is generally a mere wanderer over its surface—a hunter, a fisherman, a herdsman. A few small settlements, separated by vast deserts, give proof of his having made some weak attempts to establish a footing.

In the absence of manufactures and agriculture, man is entirely dependent on the lower animals for the means of 'subsistence. They constitute his wealth, and occupy all his care. They yield him food and clothing, and materials for shelter and for fashioning his rude 'implements and weapons. The defence with which nature has furnished them against the rigours of the climate, forms the very attraction which exposes them to the attacks of man. The rich furs yielded by the bear, the fox, the sable, the ermine, the lynx, the sea-otter, the seal, and many other Arctic animals, are valuable articles of commerce; and are, indeed, the only means by which the nomads of Siberia and the Esquimaux of North America can procure the foreign articles they require. The pursuit of the whale, the walrus, and the dolphin, the shark-fisheries of Greenland, the cod-fisheries of Greenland and Norway, and the eider-down⁴ trade of Iceland, complete the list of the 'mercantile 'resources of these regions.

The most useful, however, of all the Arctic animals is the reindeer. Indeed it is as 'indispensable to the Laplander, the Siberian, and the Esquimaux, as the camel is to the Bedouin, or the mule to the Peruvian,⁵ or as the cocoa-nut palm—the tree of a hundred uses—is to the islanders of the Indian Ocean. Living

and dead, he renders to the busy Lapp all the services which it requires three or four animals—the horse, the cow, and the sheep or the goat—to render to the inhabitants of temperate climes. He is tractable and easily tamed. He even saves his master the trouble of providing him with food. For the most remarkable circumstance about him is the unerring instinct with which he discovers his favourite moss, even when the snow covers it to the depth of several feet. As the camel is the “ship” of the ocean of sand, so assuredly is the reindeer the camel of the desert of snow!

The Antarctic regions are far more desolate than the Arctic. There no energetic hunters like the Esquimaux chase the seal or the walrus; no patient herdsmen like the Lapps follow their reindeer to the brink of the icy ocean: all is one dreary, cheerless waste, uninhabited and uninhabitable, except by migratory birds,—the petrel, the albatross, the penguin. No plant of any description is found on any part of the Antarctic continent; no land quadruped lives there; everywhere the snow-line descends to the water's edge.

Certainly the grandest feature which nature presents in these regions is the Parry mountain-chain, about 1700 miles south of New Zealand. The most conspicuous object of the chain is



MOUNT EREBUS.

Mount Erebus,⁶ an active volcano, of which Sir James Ross—the greatest of Antarctic explorers—had the good fortune to witness a magnificent eruption in 1841. The enormous column of flame and smoke rising 2000 feet above the mouth of the crater,

which is elevated 12,400 feet above the level of the sea, together with the snow-white mountain-chain and the deep blue ocean, formed a magnificent scene. It is generally supposed that a vast continent exists at the South Pole; but there have been few explorations made in that desolate region, and very little is yet known of the South Polar World.

brill'iancy, bright'ness.
bur'nished, polished.
col'umn, pil'lar.
conspic'uous, prom'inent.
con'tinent, a large portion
of land.
crys'tal, glass-like.
em'erald, green.

energet'ic, vig'orous.
fir'mament, heavens.
im'plements, tools.
impôs'ing, strik'ing.
indispens'able, essen'tial.
magnif'icence, grand'eur.
mer'cantile, commer'cial.
phenom'enon, appear'ance.

resour'ces, means.
serene'ly, calm'ly.
simulta'neously, at one
time.
spec'tacles, sights.
subsist'ence, sus'tenance.
transpa'rency, clear'ness.
unerr'ing, never-failing.

¹ **Midnight sun.**—Though at his lowest point in the heavens, he is still above the horizon. (See p. 107, Note 3.)

² **The Aurora**—that is, the Aurora Borealis, popularly called the Northern Lights. *Aurora* is the Latin word for "dawn," or "daybreak;" when personified this became the goddess of the morning. It was formerly believed that the aurora had its origin outside of the atmosphere of the Earth. It is now known to be caused by electric discharges in the upper regions of the atmosphere.

³ **The magnetic meridian**—a great circle passing through the spectator's standpoint and the magnetic pole of the Earth, or a corresponding circle in the heavens. The magnetic pole, to which the magnet points, is not the same as the geographical North Pole, but it is near it.

⁴ **Eider-down**—the valuable down or soft breast-feathers of the eider-duck. Its collection is attended with great cruelty. The bird lines her nest with the down

from her own breast, and lays her eggs in it. The collectors rob the nest of its contents. She lines it again, and lays more eggs. She is again robbed. When her own down is exhausted she calls her mate to her assistance, and he willingly bares his breast to supply the deficiency. If this be repeated oftener than three or four times, however, the birds are apt to abandon the spot and build elsewhere.

⁵ **The mule to the Peruvian.**—On the sandy waste of the coast of Peru, the mule is truly "the ship of the desert." It is able to bear both hunger and thirst, and all the fatigues of a prolonged journey over the sand, much longer than the horse.

⁶ **Mount Erebus.**—This mountain was named after the ship commanded by Sir James Ross in his expedition in 1841. An extinct volcano to the east of Mount Erebus was called Mount Terror, after the companion ship commanded by Francis Crozier, who afterwards perished with Franklin in the Arctic Sea.

QUESTIONS.—What are the most striking aspects of nature in the Arctic regions? Where are icebergs seen to greatest advantage? Which is the most magnificent of Arctic phenomena? Where is it seen? How does it begin? What does the bow afterwards send forth? When does the phenomenon attain its highest splendour? Of what colours are the streams? What heightens the charms of the spectacle? What part does man play in those regions? On what is he solely dependent for sustenance? What animals yield valuable furs? Mention the other mercantile resources of the Arctic regions. What animal is most useful to man there? What is the most remarkable circumstance about the reindeer? What is the character of the Antarctic regions? What birds are seen there? Of what are these regions entirely destitute? What is their grandest feature? What is the highest summit of the chain called? After what? When was a grand eruption of it seen? By whom? What is supposed to exist at the South Pole?

THE BURNING OF MOSCOW.

A.D. 1812.

WHEN Napoleon^(b) first came within sight of Moscow,¹ with its domes, and towers, and palaces, he gazed long and thoughtfully on that goal of his wishes. Murat^(b) was the first to enter the gates, with his splendid cavalry; but as he passed along the streets he was struck by the solitude that surrounded him. Nothing was heard but the heavy tramp of his squadrons: a deserted and abandoned city was the meagre prize for which such unparalleled efforts had been made.

As night drew its curtain over the splendid capital, Napoleon entered the gates, and immediately appointed Mortier^(b) governor. In his directions he commanded him to 'abstain from all pillage. "For this," said he, "you shall be answerable with your life. Defend Moscow against all, whether friend or foe."

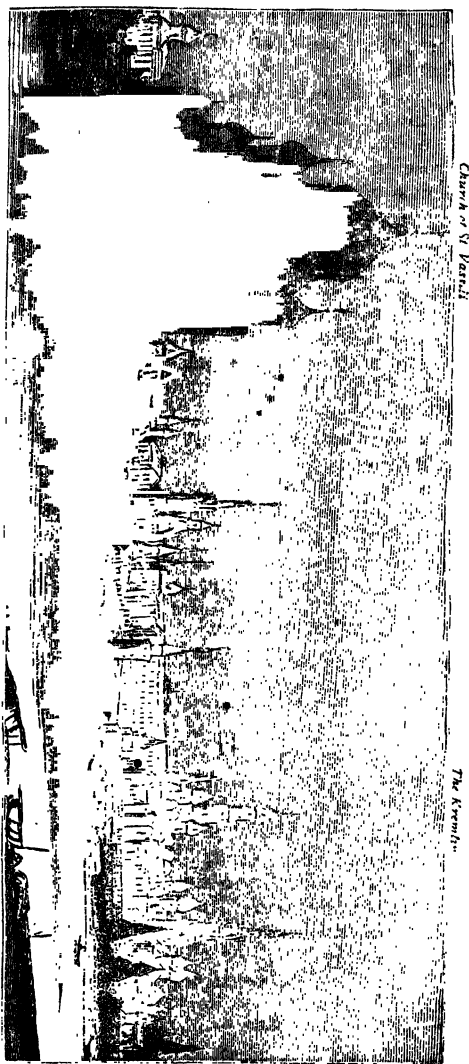
The bright moon rose over the mighty city, tipping with silver the domes of more than two hundred churches, and pouring a flood of light over a thousand palaces, and the dwellings of three hundred thousand inhabitants. The weary arm sank to rest; but there was no sleep for Mortier's eyes. Not the gorgeous and variegated palaces and their rich ornaments, nor the parks and gardens and Oriental magnificence that everywhere surrounded him, kept him wakeful, but the ominous forebodings that some dire calamity was hanging over the silent capital.

When he had entered it, scarcely a living soul met his gaze as he looked down the long streets; and when he broke open the buildings, he found salons, and parlours, and bed-rooms, all furnished and in order—but no occupants! This sudden abandonment of their homes betokened some secret purpose, yet to be fulfilled. The midnight moon was stealing over the city, when the cry of "Fire!" reached the ears of Mortier: the first light² over Napoleon's faltering empire was kindled, and that most wondrous scene of modern times commenced—THE BURNING OF MOSCOW.

Mortier, as governor of the city, immediately issued his orders, and was putting forth every exertion, when at daylight Napoleon hastened to him. Affecting to disbelieve the reports that the inhabitants were firing their own city, he put more rigid commands on Mortier to keep the soldiers from the work of destruction. The marshal simply pointed to some iron-covered

houses that had not yet been opened, from every crevice of which smoke was issuing like steam from the sides of a pent-up volcano. Sad and thoughtful, Napoleon turned towards the Kremlin,³ the ancient palace of the Czars, whose huge structure rose high above the surrounding edifices.

In the morning, Mortier, by great exertions, was enabled to subdue the fire. But the next night, Sept. 15, at midnight, the sentinels on watch upon the lofty Kremlin saw below them the flames bursting through the houses and palaces, and the cry "Fire! fire!" again passed through the city. The dread scene was now fairly opened. Fiery balloons were seen dropping from the air and alighting on the houses; dull explosions were heard on every



GENERAL VIEW OF MOSCOW

side from the shut-up dwellings: the next moment light burst forth from them, and the flames were raging through the apartments.

All was uproar and confusion. The serene air and moonlight of the night before had given way to driving clouds, and a wild tempest, like the roar of the sea, swept over the city. Flames arose on every side, blazing and crackling in the storm; white clouds of smoke and sparks in an incessant shower went driving towards the Kremlin. The clouds themselves seemed turned into fire, rolling wrath over devoted Moscow. Mortier, crushed with the responsibility thrown upon his shoulders, moved with his Young Guard amid this desolation, blowing up the houses and facing the tempest and the flames—struggling nobly to arrest the conflagration.

He hastened from place to place amid the ruins, his face blackened with smoke, and his hair and eyebrows singed with the fierce heat. At length the day dawned, and Mortier, who had strained every nerve for thirty-six hours, entered a palace and dropped down from fatigue. The manly form and stalwart arm that had so often carried death into the ranks of the enemy, at length gave way, and the gloomy marshal lay and panted in utter exhaustion. The night of tempest was succeeded by a day of fiery storm; and when night again enveloped the city, it was one broad flame, waving to and fro in the blast! •

The wind had increased to a perfect hurricane, and shifted from quarter to quarter, as if on purpose to swell the sea of fire and extinguish the last hope. The fire was approaching the Kremlin: already the roar of the flames, the crash of falling houses, and the crackling of burning timbers, were borne to the ears of the startled Emperor. He arose and walked to and fro, stopping convulsively and gazing on the terrific scene. Murat and others of his marshals rushed into his presence, and on their knees besought him to flee; but he still clung to that haughty palace, as if it were his empire.

At length the shout, "The Kremlin is on fire!" was heard above the roar of the conflagration, and Napoleon reluctantly consented to leave. He descended into the streets with his staff, and looked about for a way of egress, but the flames blocked every passage. At length they discovered a postern gate leading to the Moskwa,⁴ and passed through it; but they had entered still further into the danger.

As Napoleon cast his eye round the open space, girdled and arched with fire, smoke, and cinders, he saw one single street yet

open, but all on fire. Into this he rushed, and amid the crash of falling houses and the raging of the flames, over burning ruins, through clouds of rolling smoke, and between walls of fire, he pressed on. At length, half suffocated, he emerged in safety from the blazing city, and took up his quarters in the imperial palace of Petrowsky, nearly three miles distant.

Mortier, relieved from his anxiety for the Emperor, redoubled his efforts to arrest the conflagration. His men cheerfully rushed into every danger. Breathing nothing but smoke and ashes—canopied by flame and smoke and cinders—surrounded by walls of fire that rocked to and fro, and fell with a crash amid the blazing ruins, carrying down with them roofs of red-hot iron—he struggled against an enemy that no boldness could awe or courage overcome.

Those brave troops had heard the tramp of thousands of cavalry sweeping to battle, without fear; but now they stood in still terror before the march of the conflagration, under whose burning footsteps was heard the incessant noise of falling houses and palaces and churches. The continuous roar of the raging hurricane, mingled with that of the flames, was more terrible than the thunder of artillery; and before this new foe, in the midst of this battle of the elements, the awe-struck army stood powerless and affrighted.

When night again descended on the city, it presented a spectacle the like of which had never been seen before, and which baffles all description. The streets were streets of fire; the heavens a canopy of fire; and the entire body of the city a mass of fire, fed by a hurricane that sped the blazing fragments in a constant stream through the air. Incessant explosions, from the blowing up of stores of oil and tar and spirits, shook the very foundations of the city, and sent vast volumes of smoke rolling furiously toward the sky. Huge sheets of canvas on fire came floating, like messengers of death, through the flames; the towers and domes of the churches and palaces, glowing with red-heat over the wild sea below, then tottering a moment on their bases, were hurled by the tempest into the common ruin.

Thousands of wretches, before unseen, were driven by the heat from the cellars and hovels, and streamed in an incessant throng along the streets. Children were seen carrying their parents, the strong the weak; while thousands more were staggering under loads of plunder which they had snatched from the flames. These, too, would frequently take fire in the falling shower, and the miserable creatures would be compelled to drop them and flee

for their lives. Oh, it was a scene of woe and fear inconceivable and 'indescribable! A mighty and closely-packed city of houses and churches and palaces, wrapped from limit to limit in flames, which are fed by a whirling hurricane, is a sight this world has seldom seen.

But this was within the city. To Napoleon without, the spectacle was still more sublime and terrific. When the flames had overcome all obstacles, and had wrapped everything in their red mantle, that great city looked like a sea of rolling fire, swept by a tempest that drove it into billows. Huge domes and towers, throwing off sparks like blazing 'firebrands, now disappeared in their maddening flow, as they rushed and broke high over their tops, scattering their spray of fire against the clouds. The heavens themselves seemed to have caught the conflagration, and the angry masses that swept it rolled over a bosom of fire.

Columns of flame would rise and sink along the 'surface of this sea, and huge volumes of black smoke suddenly shoot into the air, as if volcanoes were working below. The black form of the Kremlin alone towered above the chaos—now wrapped in flame and smoke—again emerging into view—standing amid this scene of desolation and terror, like Virtue in the midst of a burning world, enveloped but 'unscathed by the devouring element. Napoleon stood and gazed on the scene in silent awe. Though nearly three miles distant, the windows and walls of his 'apartment were so hot that he could scarcely bear his hand against them. Said he, years afterwards,—

"It was the spectacle of a sea and billows of fire, a sky and clouds of flame; mountains of red rolling flames, like immense waves of the sea, alternately bursting forth and 'elevating themselves to the skies of flame above. Oh! it was the most grand, the most sublime, the most terrific sight the world ever beheld!"

J. T. HEADLEY.

abstain', refrain'.
apart'ment, room.
bar'fles, defies'.
betokened, foretold'.
can'opied, over-arched'.
conflagra'tion, burn'ing.
convul'sively, spasmod'i-
cally.
devot'ed, doomed.
discover'ed, found.
el'e'vating, rais'ing.
envel'oped, enshroud'ed.
exer'tion, ef'fort.

explo'sions, reports'.
fal'tering, tot'tering.
fatigue', exhaust'ion.
fire brands, fag'ots.
forebod'ings, por'tents.
hov'els, cel'lars.
hur'ricane, tem'pest.
indesc'rib'able, beyond the
power of words.
is suing, emerg'ing.
oc'cupants, inhab'itants.
om'inous, inauspi'cious.
pil'lage, plun'der.

relieved', deliver'ed.
reluctantly, unwill'ingly.
rig'id, strict.
sen'tinels, watch'men.
sol'itude, lone'liness.
stag'gering, reel'ing.
suf'focated, choked.
sur'face, bo'som.
unpar'alleled, une'qual-
led.
unscathed', unharmed'.
volca'no, burn'ing moun'-
tain.

¹ **Moscow.**—Napoleon, having humbled Austria and Prussia, resolved to strike a terrible blow at Russia, because she refused to join him in the plan he had devised for the ruin of English commerce. In 1812 he led into that country an army of 600,000 men,—a larger army, it is said, than, up till that time, had ever been led into the field by a single general. After gaining several victories, he advanced to Moscow in September. What took place there is described in the lesson. The severity of winter compelled him to begin a precipitate retreat, during which his grand army was all but totally destroyed.

² **The first light, &c.**—The failure of the Russian campaign was Napoleon's first great reverse, and led directly to his fall. It proved to Europe that he was vulnerable, and stirred up Prussia and Austria to make the stupendous effort which enabled them to throw off his yoke. The combined Russians, Prussians, and Austrians defeated him at Leipsic in 1813.

³ **The Kremlin,** the imperial palace at Moscow; built about 1376, burned down in 1812, and rebuilt in 1816.

⁴ **The Moskwa,** the river on which Moscow stands. It is a tributary of the Oka, as that is of the Volga.

QUESTIONS.—What struck Murat as strange when he entered Moscow? What directions did Napoleon give to Mortier? What kept the latter wakeful that night? From what did he infer some secret purpose, to be fulfilled? What cry reached him at midnight? What commands did Napoleon give him when he went to him at daylight? How did Mortier answer him? By what means was the fire spread the next night? What increased its fury? To what place did Napoleon cling? What danger had he to encounter before he escaped from the city? What means did Mortier adopt to try to arrest the progress of the fire? What was the aspect of the city on the third night? Who then thronged the streets? Where did they come from? From what point was the spectacle most sublime? What building alone towered above the chaos? What did Napoleon say of the scene, years afterwards?

THE RETREAT OF THE FRENCH ARMY FROM MOSCOW.

MAGNIFICENCE of ruin! what has Time,

In all it ever gazed upon of war,

Of the wild rage of storm, or deadly 'dime,

Seen, with that battle's 'vengeance to compare?

How glorious shone the invaders' pomp afar!

Like 'pampered lions from the spoil they came:

The land before them silence and despair,

The land behind them 'massacre and flame.

Blood will have tenfold blood! What are they now?—A name.

Homeward by hundred thousands, column deep,

Broad square, loose squadron, rolling like the flood,

When 'mighty 'torrents from their channels leap,

Rushed through the land the haughty multitude,

Billow on endless billow: on through wood,

O'er rugged hill, down sunless, 'marshy vale,

The death-devoted moved, to 'clangour rude

Of drum and horn, and 'dissonant clash of mail,

Glancing 'disastrous light before that sunbeam pale.

Again they reached thee, Borodino!¹ Still
 Upon the loaded soil the 'carnage lay,
 The human harvest, now stark, stiff, and chill;
 Friend, foe, stretched thick together, clay to clay.
 In vain the startled legions burst away—
 The land was all one naked 'sepulchre:
 The shrinking eye still glanced on grim Decay;
 Still did the hoof and heel their passage tear
 Through cloven helms and arms, and corpses mouldering drear.

The field was as they left it; 'fosse and fort
 Streaming with slaughter still, but desolate—
 The cannon flung 'dismantled by its port:
 Each knew the mound, the black 'ravine whose strait
 Was won and lost, and thronged with dead, till Fate
 Had fixed upon the victor—half undone.
 There was the hill from which their eyes elate
 Had seen the burst of Moscow's golden zone:
 But Death was at their heels—they shuddered and rushed on.

The hour of vengeance strikes! Hark to the gale,
 As it bursts hollow through the rolling clouds,
 That from the North in sullen 'grandeur sail
 Like floating Alps. Advancing darkness broods
 Upon the wild horizon; and the woods,
 Now sinking into 'brambles, echo shrill,
 As the gust sweeps them; and those upper floods
 Shoot on their leafless boughs the sleet-drops chill,
 That on the hurrying crowds in freezing showers 'distil.

They reach the wilderness! The majesty
 Of solitude is spread before their gaze,—
 Stern nakedness—dark earth and wrathful sky:
 If ruins were there, they long had ceased to blaze;
 If blood was shed, the ground no more betrays,
 E'en by a skeleton, the crime of man:
 Behind them rolls the deep and 'drenching haze,
 Wrapping their rear in night; before their van
 The struggling daylight shows the 'unmeasured desert wan.

Still on they sweep, as if their hurrying march
 Could bear them from the rushing of His wheel
 Whose chariot is the whirlwind. Heaven's clear arch
 At once is covered with a 'livid veil:
 In mixed and fighting heaps the deep clouds reel:
 Upon the dense horizon hangs the sun,
 In 'sanguine light, an orb of burning steel:
 The snows wheel down through twilight, thick and dun.
 Now tremble, men of blood—the 'judgment has begun!

The trumpet of the northern winds has blown,
 And it is answered by the dying roar
 Of armies on that boundless field o'erthrown.
 Now in the awful gusts the desert hoar
 Is 'tempested—a sea without a shore,
 Lifting its feathery waves! The legions fly;—
 Volley on volley down the hailstones pour:
 Blind, famished, frozen, mad, the wanderers die;
 And, dying, hear the storm but wilder thunder by.

Such is the hand of Heaven! A human blow
 Had crushed them in the fight, or flung the chain
 Round them where Moscow's 'stately towers were low;
 And all be stilled. But thou! thy battle-plain
 • Was a whole empire: that devoted train
 Must war from day to day with storm and gloom
 (Man following, like the wolves that rend the slain);
 Must lie from night to night as in a tomb;
 Must fly, toil, bleed for home—yet never see that home!
 CROLY.

bram'bles, prickly shrubs.	drench'ing, soak'ing.	ravine', gorge.
car'nage, corpses.	fosse, ditch.	sa'n'guine, blood-red.
clam'gour, clam'our	grand'eur, maj'esty.	sep'ulchre, bur'ial-place.
clime, cli'mate.	judg'ment, doomsday.	state'ly, commanding.
disas'trous, destructive.	liv'id, murk'y.	tem'pested, ag'itated.
disman'tled, dismount'ed.	marsh'y, fen'ny.	tor'rents, cur'rents.
dis'sonant, discord'ant.	mas'sacre, butch'ery.	unmeas'ured, immense'.
distil', diffuse'.	pam'pered, gorged.	ven'geance, revenge'.

¹ Borodino, a village on the Moskwa, the French and the Russians. Both sides
 above Moscow, where, on the 7th Septem- claimed the victory; but, as the Russians
 ber, just a week before Moscow was en- retired after the battle, the palm is usually
 tered, a bloody battle was fought between assigned to the French.

MY MOTHER.

THEY tell us of an Indian tree,
 Which,—howsoe'er the sun and sky
 May tempt its boughs to wander free,
 And shoot and blossom wide and high,—
 • Far better loves to bend its arms
 Downwards again to that dear earth,
 From which the life that fills and warms
 Its grateful being first had birth:
 'Tis thus, though wooed by flattering friends,
 And fed with fame (if fame it be),
 This heart, my own dear Mother, bends,
 With love's true instinct, back to thee.

MOORE.

THE TEMPERATE REGIONS.

THE North Temperate Zone is the work-shop of the world. In the Frigid and Torrid Zones nature is 'preëminent. She defeats human labour in the former, by her 'sterility; in the latter she makes it unnecessary, by her 'luxuriance. But the supremacy of Man is the leading characteristic of the temperate regions of the globe. They contain three-fourths of the whole human race. Within them civilization has been most highly developed; and there the great events of history have been enacted, both in ancient and in modern times.

This activity and movement are due in a great measure to the influences of climate. In temperate climes, says Guyot, "the 'alteriations of heat and cold, the changes of the seasons, a fresher and more bracing air, incite man to a constant struggle, to forethought, and to the vigorous 'employment of all his faculties. A more economical nature yields nothing, except to the sweat of his brow; every gift on her part is a recompense for effort on his. Nature here, even while challenging man to the conflict, gives him the hope of victory; and if she does not show herself prodigal, she grants to his active and 'intelligent labour more than his necessities require. While she calls out his energy, she thus gives him ease and leisure, which permit him to cultivate all the lofty 'faculties of his higher nature. Here, physical nature is not a tyrant, but a useful helper: the active faculties, the understanding, and the reason, rule over the instincts and the passive faculties; the soul over the body; man over nature.

"In the frozen regions man also contends with nature, but it is with a 'niggardly and severe nature; it is a desperate struggle—a struggle for life. With difficulty, by force of toil, he succeeds in providing for himself a 'miserable support, which saves him from dying of hunger and hardship during the tedious winters of that climate. High culture is not possible under such 'unfavourable conditions."

The excessive heat of the Tropics, on the other hand, enfeebles man. It invites to repose and inaction. Not only in the vegetable world and in the lower animals is the power of life carried to its highest degree,—in tropical man, too, physical nature excels. There the life of the body overmasters that of the soul. The physical instincts eclipse the higher faculties; passion 'predominates over intellect and reason; the passive over the active faculties.

"A nature too rich, too 'prodigal of her gifts, does not compel

man to wrest from her his daily bread by his daily toil. A regular climate, and the absence of a dormant season,¹ render forethought of little use to him. Nothing invites him to that struggle of intelligence against nature which raises the powers of man to their highest pitch. Thus he never dreams of resisting physical nature: he is conquered by her; he submits to the yoke, and becomes again the animal man, in proportion as he abandons himself to external influences, forgetful of his high moral 'destination.'

While a temperate climate is thus most favourable for developing man's intellectual vigour and physical strength, it is also most suitable for those animal and vegetable products which are best adapted to meet the wants of the great mass of mankind. Thus the ox and the sheep—the 'ruminants most useful to man—are natives of the Temperate Zone, and are diffused very widely and in vast numbers over it. From his home in Central Asia, the horse—the 'indispensable ally of man in every kind of industry, in war as in peace, in his pleasures as in his toils—has spread round and round the globe. The feathered tribes, too, exist in such abundance in these regions as to form in some countries a staple article of food.

Turning now to the vegetable kingdom, we find the corn-plants—the plants which are best adapted for the food of civilized man—scattered 'profusely over the Temperate Zone. It is only when man has settled down in a fixed abode,—when he has abandoned his nomadic life and become an agriculturist, attaching himself to a certain locality,—that it is possible for him to rear corn. Corn is not self-sustaining, self-diffusing, like the wild grass. Self-sown, it gradually dwindles away, and finally disappears. "It can only be reared 'permanently by being sown by man's own hand, and in ground which man's own hand has tilled."

Corn, therefore, a great German botanist has said, precedes all civilization. With it are connected rest, peace, and domestic happiness, of which the wandering savage knows nothing. In order to rear it, nations must take possession of certain lands; and when their existence is thus firmly established, improvements in manners and customs speedily follow. They are no longer inclined for bloody wars, but fight only to defend the fields from which they derive their support.

Corn is the food most 'convenient and most suitable for man in a social state. It is only by the careful cultivation of it that a country becomes capable of permanently supporting a dense



THE CORN FIELD.

population. All other kinds of food are precarious, and cannot be stored up for any length of time : roots and fruits are soon exhausted ; the produce of the chase is uncertain, and if hard pressed ceases to yield a supply.* In some countries the pith of the sago-palm,² the fruit of the bread-fruit tree,³ the root of the esculent fern, and similar food, supplied spontaneously by nature, serve to maintain a thinly scattered and easily satisfied population ; but man in these rude circumstances is invariably found depraved in body and in mind, and hopelessly incapable of bettering his condition. But the cultivation of corn, while it furnishes him with a supply of food for the greater part of the year, imposes upon him certain labours and restraints which have a most beneficial influence upon his character and habits.

Such are the plants which form the characteristic vegetable

product of temperate regions. Wheat, which will not thrive in hot climates, flourishes all over the Temperate Zone, at various ranges of elevation. Maize spreads over an immense geographical area in North America, as well as in Southern Europe. Barley is cultivated in those parts of Europe and Asia where the soil and climate are not adapted for wheat; while oats and rye extend far into the bleak North, and disappear only when we reach those desolate Arctic regions where man cannot exist in his social capacity. By such striking adaptations of different varieties of grain to gradations of climate and varieties of soil, does Providence furnish the food indispensable for the sustenance of the human race.

Again: what are the trees that are most useful to man in a high state of civilization? Unquestionably those yielding the largest supply of common timber. Now the chief fancy-wood trees—those which form part of man's luxuries—belong to the Tropics; but the pines and hard-wood trees—those which minister to man's necessities—belong distinctively to the Temperate Zone. The inhabitant of that zone must send to Honduras for mahogany, to Brazil for rosewood, to make his finer furniture; but the pine, the ash, the oak, the elm, the beech—the timber used in building his houses and work-shops, the wood used in fashioning his tools and carts and carriages, and in making his most complicated machinery—these he finds abundantly in his own woods. They are reared in the same climate, they breathe the same air as himself.

What is true of the vegetable world above the soil, is true also of the mineral world beneath it. All the metals most useful to man, both for domestic and for industrial purposes—iron, tin, copper, lead—are found in abundance within the temperate regions. Coal, too, without which the ores could not be profitably smelted or supplied in sufficient quantities, and which is the main-spring of all manufacturing industry, is most plentiful in the Temperate Zone.

But very marked differences occur within the Temperate Zone itself—the result of differences of climate and configuration. Central Asia, for example—indeed, the whole of Asia north of the line of the Caucasus, the Himalaya, and the Chinese Wall⁴—consists of barren steppes, which now, as much as six centuries ago, are the home of barbarism and rapine. And why is this? Because its inland deserts are far removed from the influences of the sea; because lofty mountains give most of its land a northern aspect; because its rivers flow either into salt lakes

with no outlet, or into a frozen ocean which completely shuts out commerce.

Look at Europe on the other hand. It is of all the continents the one which is most thoroughly broken up by inroads of the sea. Asia is four and a half times as large as Europe in 'superficial area; yet Europe has a coast-line five times as great as that of Asia. Excepting only the plains of Russia, no part of Europe is more than three hundred miles distant from the sea; while the number and the 'distribution of its navigable rivers bring the ocean within easy reach even of its remotest parts.

And what are the consequences of this? A glance at the map of Europe will tell us. It is evidently the continent most thickly covered with cities and towns; and with high-roads, canals, and railways, weaving the towns into a living and ever-busy net-work. There civilization has struck its roots deepest, and stretched its branches widest. There the arts and sciences have reached their highest 'development. There the great mechanical inventions which have knit the world into one vast inter-dependent society, have had their birth; and commerce, manufactures, and agriculture have been brought to the greatest perfection.

Europe has laid the whole world under contribution for the supply of her physical wants. In return, she has laid the whole world under 'obligation to her for more 'ethereal but not less real benefits. She has been the cradle of those free political institutions which have developed the self-control and the independence of man as a member of society. Her literature is the richest and most varied in the world. In Europe the Christian religion has been most widely diffused, and it has been the centre from which the message of peace has been sent to the farthest corners of the world.

What is true of Europe as a whole is preëminently true of Great Britain. There the circle of European—nay, of universal—civilization and industry has its centre. By her colonies she has diffused the influence of her spirit and the energy of her sons throughout the world, so that her greatest rivals in material and social progress are her own children.

This is a proud position for so small a land to hold. But 'in-significant as the British Isles appear on the map of the world, Britain is in no small degree indebted to climate, physical configuration, and geographical position for the greatness which she has achieved.

"The 'territory," says Emerson,^(b) "has a singular perfection.

The climate is warmer by many degrees than it is entitled to be by latitude. Neither hot nor cold, there is no hour in the whole year when one cannot work. The temperature makes no 'exhaustive demands on human strength, but allows the attainment of the largest stature. In variety of surface it is a 'miniature of Europe, having plain, forest, marsh, river, sea-shore. From first to last it is a museum of 'anomalies. This foggy and rainy country furnishes the world with astronomical observations. Its short rivers do not afford water-power, but the land shakes under the thunder of its mills. There is no gold mine of any importance, but there is more gold in England than in all other countries. It is too far north for the culture of the vine, but the wines of all countries are in its docks; and oranges and pine-apples are as cheap in London as on the Mediterranean."

adapta'tions, adjust'ments.
alterna'tion, succes'sion.
anom'alies, irregularities.
bar'barism, savageness.
benefic'ial, improv'ing.
characteris'tic, distinct'ive.
com'plicated, in'tricate.
configura'tion, form.
conve'nient, advant'ageous
destina'tion, des'tiny.
devel'opment, growth.
distribu'tion, arrange'ment.
employ'ment, use.

es'culent, eat'able.
ethe'real, immate'rial.
exhaust'ed, consumed'.
exhaust'ive, wearing out.
fac'ulties, pow'ers
indispen'sable, nec'essary.
insignif'icant, unimport-
intell'igent, wise. [ant.
luxu'riance, prolif'icness.
min'iature, reduced copy.
mis'erable, wretch'ed.
nig'gardly, penu'rious.
obliga'tion, indebt'edness.

per'manently, last'ingly.
predom'inates, has mastery.
preem'inent, supreme'.
prod'igal, liberal
profuse'ly, abundantly
ru'minants, cud-chewers.
smelt'ed, separated into
metal and dross.
sponta'neously, vol'unta-
steril'ity, bar'renness. [rily.
superf'icial, sur'face.
ter'ritory, land.
unfa'vourable, ad'verse.

¹ A dormant season.—Winter, when the powers of nature are asleep. The approach of winter, in the temperate regions, makes man lay up stores from the previous harvest. He is thus encouraged to be provident and thoughtful. This is wanting in the Tropics.

² Sago-palm.—This tree grows in the East Indian Islands, in Ceylon, and on the south-eastern coast of Hindostan.

³ Bread-fruit tree.—Grows in Tahiti and other South Sea Islands.

⁴ Chinese Wall.—A stupendous wall forming the northern boundary of China. It runs westward from the Yellow Sea for 1250 miles, till it meets the mountains which form the western frontier. It was intended as a defence against the Tartars, and was completed in the third century B.C.

QUESTIONS.—What is the leading characteristic of the temperate regions? What proportion of the human race do they contain? To what is the activity of these regions in a great measure due? How does a temperate climate enable man to work? How does it compel him to work? What is the character of his struggle with nature in the frozen regions? What prevents labour in the Tropics? What renders it unnecessary? What animals are characteristic of the temperate regions? What plants? Why does corn precede all civilization? What is necessary to its permanent production? What are the chief corn-plants of the Temperate Zone? What trees are most abundant there? What minerals? By what are the differences that occur within the Temperate Zone produced? What is the character of Central Asia? How is this accounted for? What is remarkable in the configuration of Europe? What are the consequences of this? What country in Europe is preëminent in these respects? To what is Britain in some degree indebted for her proud position? What does Emerson say of the effects of its climate? Mention some of the anomalies which he points out.

THE OVERLAND ROUTE.¹

To be read before a Map of the Eastern Hemisphere.

EMBARKING at Southampton in one of the splendid steamers of the Peninsular and Oriental Company, we soon pass the Isle of Wight, and make for the open sea. The second day brings us in contact with the rough waters of the Bay of Biscay. The Spanish coast is probably sighted off Cape Finisterre; and here the Englishman begins to recall with patriotic pride the many triumphs achieved by his countrymen on the Peninsula and in the surrounding waters. Here, in 1805, Sir Robert Calder inflicted a partial defeat on Villeneuve, the French admiral; who, a few months later, was completely overthrown at Trafalgar. Coruña* is not far off, where Moore so gallantly held the French at bay till he completed his plans for embarkation.

At the south-western angle of Portugal we are off Cape St. Vincent—a lone, romantic promontory, with some fractured rocks at its base standing out into the ocean, and having on its summit a fine light-house with a brilliant light revolving every two or three minutes. The cape was the scene of two great victories gained by the English fleet over that of Spain; in connection with the second of which it gave his title to one of England's foremost sailors. There the Spaniards were defeated by Sir George Rodney in 1780, and still more signally by Sir John Jervis (afterwards Earl St. Vincent) in 1793. It was on the latter occasion that Nelson, then bearing the rank of commodore, took one of the Spanish ships, the *San Nicolas*, by entering through its cabin windows! Seeing this, the captain of the *San Josef* discharged a volley on the captors. Nelson thereupon closed with the *San Josef*, and boarded her from the deck of the *San Nicolas*.

Ere long we discern the promontory of Trafalgar stretching into the Atlantic—a spot hallowed by what, in the estimation of Englishmen, is certainly the most memorable† of all the events which have made this corner of Europe famous in ancient and in modern story.

On the south, the lonely headland of Cape Spartel rises from the African coast above the Atlantic waters; and to the east of it may be seen the white buildings of Tangier, a city of Phœnician origin, and of note in the times of the Romans. Seized in 1457 by the Portuguese, Tangier was by them ceded to England

* See lesson on *Battle of Coruña and Death of Moore*, p. 18.

† See lessons on *Battle of Trafalgar and Death of Nelson*, pp. 48, 54.

in 1662, along with Bombay, as part of the dower of Catherine of Braganza, when she became queen of Charles II. It proved so useless and so 'expensive a possession, however, owing to the constant attacks of the Moors, that it was very soon 'abandoned to them, and they at once set about repairing the costly works which the English had 'dismantled at their departure. In this region, according to ancient fable, the Hesperides—daughters of the evening star—had their famous gardens, whose golden apples Hercules 'ruthlessly carried off.

We are now fairly within the renowned strait which was regarded by the ancients with so much awe as the remote boundary of their world, beyond which all was 'mystery and fable. On our left are the green hills of Spain, swelling into lofty mountains not far from the shore, with here and there a white village or a 'picturesque watch-tower. By-and-by we get a glimpse of the mouldering and forlorn ramparts of Tarifa, the most thoroughly Moorish town in Spain, and the most southern in Europe. From this point the Vandals² were driven across to Africa by the Goths in 417 A.D. At this point Tarif,³ a great Moorish general, after whom Tarifa is named, landed with his army in 711, when he came to conquer the Goths and establish the Moorish kingdom in Spain. Here, finally, Alfonso XI. overthrew the Moors in a decisive action in 1340. Tarifa is a quaint old town, with its island fortress and light-house—fitting 'memento of the fierce struggles in which the inhabitants of the opposing shores engaged.

In a few hours we reach the grand fortress of Gibraltar, which keeps stern watch at the gates of the Mediterranean, and forms with the Rock of Ceuta, on the African side, the famous "Pillars of Hercules." Nothing could well be more 'imposing than the view of Gibraltar from the bay on its western side. Ranges of batteries rising from the shore, tier above tier, extend along its entire sea-front. At the northern extremity is the town. Every nook in the crags bristles with artillery. White barracks and gay villas, 'embowered in gardens and groves, occupy the mid-way ascent. Above all towers in rugged grandeur the summit of the Rock itself.*

No less striking is the contrast which presents itself when we have doubled Europa Point, and look back to the eastern side of the Rock from the bosom of the Mediterranean. The scene which we have quitted was one of busy 'excitement and varied life. Now one long unbroken precipice, 1400 feet in height,

* See lesson on *The Great Siege of Gibraltar*, p. 11.

towers above us. There are few signs of vegetation, and none of human habitation, save only the little village of white houses in Catalan Bay, which crouches at the foot of the Rock, as if in constant dread of being crushed by the overhanging masses.

Off Cape de Gata, the south-eastern headland of Spain—in- famous to the mariner for the squalls that come suddenly down from its lofty crest—we get our last glimpse of the Peninsula, and of its brown, stern, and rugged mountains. As we skirt the African coast we discover the whereabouts of Algiers, now a French colony; then of Tunis, near which is the site of ancient Carthage, so long the rival of Rome for the supremacy of the world.

Our next stoppage is at Valetta, the port and capital of Malta, where the Knights of St. John triumphed so heroically over the infidel Turk in the sixteenth century. This, like Gibraltar, is now a British possession—one of the ocean towers which emphatically mark England's empire of the seas.

Our next port is Alexandria. The castle of Farillon, which serves as our land-mark in approaching the town, occupies the site of the famous Pharos⁴ of antiquity. A few miles east-ward from it is Aboukir Bay, where Nelson annihilated the French fleet in 1798, and shut up Buonaparte's army in Egypt. Here the literally overland part of our route commences. From Alexandria* we proceed by rail⁵ to Suez, taking Cairo on our way. Travellers hastening to India have to content themselves with a passing glimpse of Cleopatra's Needles⁶ and Pompey's Pillar⁷ at the first of these cities, and of the Pyramids in the vicinity of the last.†.

But the opening of the Suez Canal⁸ renders it more than probable that the only truly overland part of the Overland Route will ere long be dispensed with, and that steamers from Southampton will reach India direct by way of the Mediterranean and the Red Sea. Private vessels, specially adapted to the dimensions of the canal, and carrying both merchandise and passengers, now regularly perform the voyage without break. The adoption of the same course by the mail steamers is only a question of time.

The Suez Canal is certainly one of the greatest triumphs of modern engineering. Yet it is only an improvement on a much earlier plan; for it is well known that in the fifth century before

* See lesson on *The Valley of the Nile*, p. 143.

† See lesson on *Cairo and the Pyramids*, p. 136.

the Christian era, an indirect line⁹ of canal connected the two seas, the Mediterranean and the Red Sea. It began at about a mile and a half north of Suez, and struck in a north-westerly direction, 'availing itself of a series of natural hollows, to a point on the eastern branch of the Nile. By-and-by it became 'silted up; and after having been several times restored, it was finally filled with the never-resting sands in 767 A.D.

Upwards of ten centuries passed before any attempt was made to renew communication between the two seas. Then the idea occurred to the 'ingenious mind of Buonaparte; but as his engineers 'erroneously reported that there was a difference of level between the Mediterranean and the Red Sea to the extent of thirty feet, he suffered it to drop. In 1847 a scientific commission, appointed by England, France, and Austria, ascertained that the two seas had exactly the same mean level; and in 1854 Ferdinand de Lesseps, an ingenious and 'enterprising Frenchman, obtained permission from the Viceroy of Egypt to make a canal across the isthmus. It was not, however, until 1858 that De Lesseps found himself in a position to appeal to the public for support. A company was then formed, and the canal was proceeded with; a variety of ingenious machinery being invented by the French engineers to meet the 'exigencies of their novel and magnificent enterprise. On the 17th of November 1869 it was formally opened for navigation, in the presence of a host of 'illustrious personages, representing every European State.

"As we went along the Canal," says Dr. Carpenter, describing a recent visit to Egypt, "we passed between mounds or banks, higher than the ordinary level. These banks were composed of material which had been excavated from the Canal, and thrown up on either side. As we steamed along very slowly, I mounted the 'bridge' of the steamer, so as to be able to look over these banks; and there I saw the interminable barren waste on the Egyptian side covered with water, and on the eastern side a sandy desert extending to Palestine.

"One of the first features of interest was a 'floating bridge,' thrown across the Canal by steam, at a point which, I was told, was in the track of the caravans. Now here was a most curious conjuncture of modern and ancient civilisation. This caravan track is one of the most ancient of all roads, leading from Egypt into Palestine and Syria, on the very line along which Jacob's sons may have gone down into Egypt to buy corn; and there we found one of the appliances of modern civilisation, in

the shape of this 'floating bridge,' consisting of a large flat-bot-tomed boat which crosses and recrosses the Canal by means of chains wound and unwound upon large drums by a steam engine. This contact of ancient and modern civilization is one of the most remarkable features in Egypt.

"But there was another noticeable feature. There are stations all along the Canal, at which the officers reside, as well as the men who keep watch over the Canal, and who are ready to give help if any vessel should run aground. At most of these stations I noticed that there was a garden, generally with a gay show of flowers, and great cultivation of edible vegetables. Now what was the meaning of this? How could these gardens be made out of this sand and mud? The secret is, that every one of these places is supplied with fresh water.

"That fresh water is brought all the way from the Nile; for there is no fresh water to be got between Port Said and Suez—nothing but brackish water, obtained by digging. A *fresh-water canal* was therefore cut from the Nile at Cairo to Ismalia, a sort of half-way house between Suez and Port Said. Pipes convey this water to the railway which runs from Cairo to Suez by way of Ismalia. By this means a supply of wholesome water is conveyed regularly to all parts of the Canal, and flowers of every kind can be grown, nothing being wanted for the soil in that sunny clime but water. At Ismalia the head engineer has a villa with the most beautiful plants of all kinds, those of tropical as well as of temperate climes growing luxuriantly in his garden."

Before the establishment of the Overland Route, Suez, though a place of considerable transit trade between Egypt and the East, was a small, ill-built, wretched-looking town. Since that time it has been much improved, and has become the residence of many merchants and agents. The country around it is desert, and provisions and water have to be brought from great distances.

Reëmbarking at Suez, we pass down the gulf of the same name, which is the western of the two arms at the head of the Red Sea. The Gulf of Suez is 190 miles in length; and near the head of it is believed by many to be the place at which the Israelites crossed the Red Sea in their exodus from Egypt. As, however, the gulf is known to have receded many miles from its ancient head, even since the Christian era, it is more probable that the scene of the passage is now in the sandy waste of the isthmus.

The eastern arm of the Red Sea is the Gulf of Akaba, which



BIRD'S-EYE VIEW OF THE SUEZ CANAL

is 100 miles in length. On the 'triangular tongue of land between the two gulfs are the mountains of Horeb-Sinai, in whose midst there appeared to Moses "an angel of the Lord in a flame of fire in a bush;" and on whose "secret top" he received from God the "lively oracles" to give to the people.

Half way down the Red Sea, the 'navigation of which is rendered difficult by sudden changes of wind and heavy gales, we reach Jedda, one of the most active sea-ports in Arabia. Here thousands of pilgrims land every year on their way to Mecca, the birth-place of Mohammed and the cradle of the Mussulman faith. Near the southern extremity of the sea, on the margin of a sandy plain on the Arabian coast, is Mocha, a 'fortified sea-port, from which 'thousands of tons of the finest coffee are annually exported. Passing through the Straits of Bab-el-mandeb, we reach Aden, where the sign-board of "The Prince of Wales Hotel" reminds us that we are once more in a British possession. Like Gibraltar and Valetta, Aden is considered an 'impregnable fortress. Like Gibraltar, too, it stands on a rocky peninsula, connected with the mainland by a narrow isthmus. Its harbour is the best in Arabia; and the town abounds in mosques and Mohammedan remains, which testify to its former 'magnificence. From Aden we steam through the Gulf of Aden and across the Arabian Sea; and before many days pass we are at anchor in the 'spacious harbour of Bombay.

aban'doned, given up.
achieved', obtained'.
anni'hilated, reduced' to nothing.
avail'ing, taking advantage
disman'tled, destroyed'.
dispensed', departed (from).
embarka'tion, going aboard ship.
embow'ered, sheltered by trees.
emphat'ically, forc'ibly.
en'terprising, advent'u-rous.
erro'neously, mistāk'ingly.

excite'ment, activ'ity.
ex'igencies, require'ments.
ex'odus, jour'ney out.
expen'sive, costly.
for'tified, defended by
glimpse, view. [forts.
habita'tion, dwell'ing.
illu'strious, disti'nguished.
impōs'ing, majes'tic
impreg'nable, not to be
ing'e'nious, skilful. [taken.
magnif'icence, grand'eur.
memen'to, memo'rial.
mem'orable, worthy of re-mem'brance.

mys'tery, a profound' se-cret.
naviga'tion, ship-steering.
picturesque', strik'ing.
prom on'tory, head'land.
res'idence, place of abode.
ruth'lessly, pit'ilessly.
sig'nally, deci'sively.
silt'ed, filled with sand.
spa'cious, roomy.
suprem'acy, lord'ship.
surround'ing, encom'pass-ing.
trian'gular, three-sided.
vicin'ity, neigh'bourhood.

¹ The Overland Route.—The Overland Route (which crosses the land from Alexandria to Suez) was established so lately as 1845. Previously all vessels for India sailed round by the Cape of Good Hope. The voyage from Southampton to Bombay by the Cape occupies eighty-four days; the same distance by the Overland Route oc-

cupies only twenty-five. The establishment of the Overland Route was due chiefly to the perseverance and enterprise of Lieut. Thomas Waghorn, who wore out his life in the work, and died in 1849 still a young man. The Overland Route may be still further abridged by crossing the continent of Europe by rail, and sailing from Mar-

seilles, Trieste, or Brindisi to Alexandria. (See lesson *Round the World*, p. 63.)

² **The Vandals**, a tribe of northern barbarians, who are found occupying the north of Central Europe in the middle of the fourth century. (See *OUTLINES OF HISTORY*, Nelsons' School Series.)

³ **Tarif**.—Not to be confounded with Tarik, after whom Gibraltar is named.

⁴ **Pharos**, a lofty tower of white marble, built by Ptolemy Philadelphus, about 280 B.C. A fire was constantly kept burning on the top to direct sailors to the bay. It was considered one of the wonders of the world. *Pharos* has become a common name for a light-house or beacon.

⁵ **By rail**.—The Suez Railway was made by Robert Stephenson in 1858. He had been representative of England in the English, French, and Austrian Commission, appointed in 1847 to report upon the feasibility of a Suez Canal. Stephenson thought the canal scheme impracticable, and suggested and planned the railway instead.

⁶ **Cleopatra's Needles**, two large obelisks, which used to mark the site of the Temple of Cæsar, at the eastern extremity of ancient Alexandria. Their connection with Cleopatra is entirely fanciful. They were raised at Heliopolis (near Cairo)

fourteen centuries before Cleopatra's time, and were removed to Alexandria by Julius Cæsar. One of them has been erected on the Thames Embankment, London. The other has been removed to the United States of America.

⁷ **Pompey's Pillar**, a red granite Corinthian column, on the west of ancient Alexandria, which, with base and capital, is 98 feet 9 inches in height. The shaft is a single stone, 73 feet in height. It had, however, no connection with Pompey, having been erected (as the inscription on its base records) to commemorate the capture of Alexandria by the Emperor Diocletian in 297 A.D.

⁸ **The Suez Canal**.—The width of the canal on the average is about 330 feet, its depth from 20 to 26 feet. Its whole length is 72 miles. It begins at Port Said on the Mediterranean, where a spacious harbour has been built; proceeds to Kantara; traverses the Abu Ballah Lake; enters Lake Timseh at Ismalia; passes through the Bitter Lakes, and terminates at Suez.

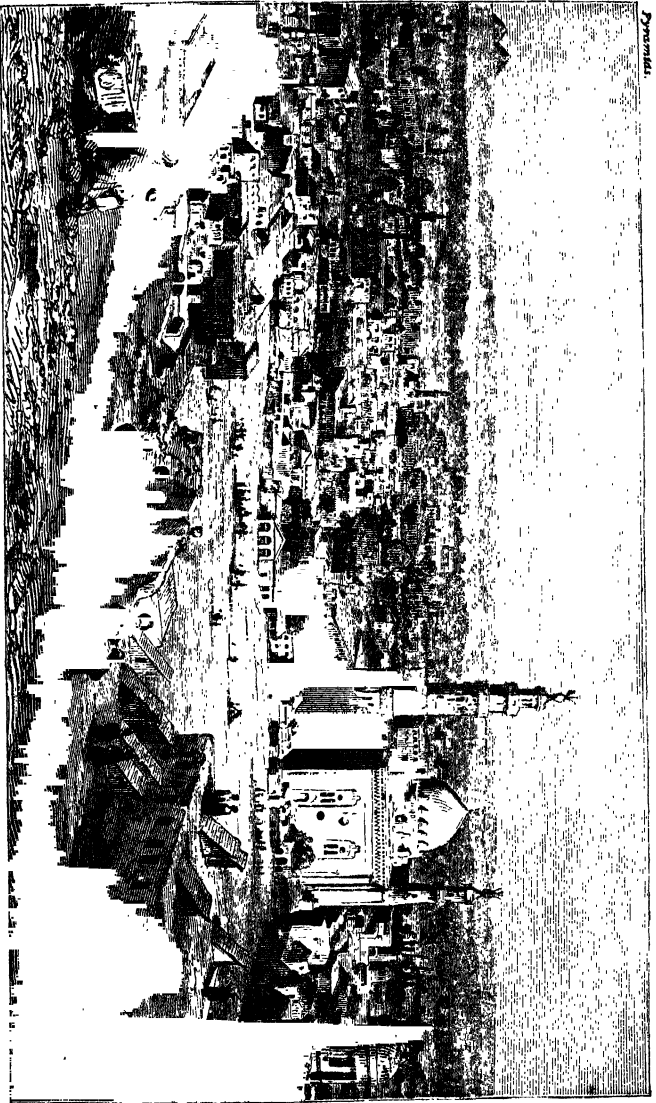
⁹ **An indirect line**.—This ancient canal was 92 miles in length—60 of which were excavated by human hands;—its width was from 108 to 165 feet, and its depth 15 feet.

QUESTIONS.—Where do the steamers in connection with the Overland Route sail from? Where is the Spanish coast sighted? What does an Englishman then recall? What battle-field is not far off? For what two events is Cape St. Vincent famous? Who was Earl St. Vincent? What feat did Nelson perform at the second battle of St. Vincent? What is, to an Englishman, the most hallowed spot in that corner of Europe? Why? What African city now comes in sight? Near what cape? When was Tangier ceded to England? Why was it abandoned? What fabled region is in the same neighbourhood? What strait is now entered? What town is by-and-by seen? What is remarkable in its position? With what historical events is it connected? What rock on the African shore is opposite Gibraltar? What do they together form? What is the appearance of Gibraltar from the bay? What contrast is presented by its eastern side? Where do we get our last glimpse of the Peninsula? What places of interest do we pass on the African coast? Where is our next stoppage? For what is Valetta famous? Where do we next proceed? What serves as our land-mark in approaching the town? What battle was fought a few miles to the east? Name the places of interest passed between Southampton and Alexandria. How do we reach Suez? What city do we take in our way? What objects of interest are to be seen near Alexandria, and in the vicinity of Cairo? How are the Mediterranean and the Red Sea now connected? What effect is the canal likely to have on the Overland Route? What do you know of an ancient canal there? Who was the engineer of the modern canal? When was it opened? What effect has the Overland Route had on Suez? What interesting events took place near the head of the Red Sea? For what is Jeddah interesting? What other Arab town do we pass? Where do we next stop? How are we reminded that it is a British possession? What is its character as a fortress? What remains may be seen there? Name the places of interest between Alexandria and Bombay.

CAIRO AND THE PYRAMIDS.

THE best view of Cairo and its vicinity is obtained from the Citadel, which commands the whole city. It is thus described by Dean Stanley: "The town is a vast expanse of brown, broken only by 'occasional' interludes of palms and sycamores, and by countless minarets.¹ About half a dozen large buildings, mosques or palaces, also emerge. On each side rise shapeless mounds;—those on the east covered with tents, and, dimly seen beyond, the browner line of the desert; those on the west, the sites of Old Cairo, of the Roman fortress of Babylon, and of Fostat, where Anirou² first pitched his tent, deserted since the time of Sal'adin. Beyond is the silver line of the Nile; and then, rising in three 'successive groups, above the delicate green plain which sweeps along nearly to the foot of the African hills, the Pyramids of Abu'sir, Saka'rah, and Ghi'zeh—these last being '*The Pyramids*,' and the nearest. There is something very striking in their total 'disconnection with Cairo. They stand alone on the edge of that green vale which is Egypt. There is no 'intermingling, as in ancient and modern Rome. It is as if you looked out on Stonehenge³ from London, or as if the Colisæ'um⁴ stood far away in the depths of the Campagna.⁵ Cairo is not 'the ghost of the dead Egyptian empire,' nor anything like it. Cairo itself leaves a deep feeling, that, whatever there was of greatness or wisdom in those remote ages and those gigantic monuments, is now the 'inheritance, not of the East, but of the West. The Nile, as it glides between the tombs of the Pharaohs⁶ and the city of the Caliphs,⁷ is indeed a boundary between two worlds."

The Pyramids stand at the edge of the desert, on the western side of the Nile, but an hour or two's distance from the city. After crossing the ferry, the stranger 'imagines them close at hand, though he has still a good long mile to traverse. A near view is generally disappointing; and it is not until the visitor begins to make comparisons, that the fact of their exceeding vastness comes home to the mind. The base of the Great Pyramid of Cheops is nearly 800 feet square, covering a 'surface of eleven acres; and its height is 461 feet, being 117 feet higher than St. Paul's Cathedral. It is a common feat of travellers to ascend, with the aid of a couple of Arab guides, to the summit; which may be reached by an active man in about twenty minutes.



CAIRO FROM THE CITADEL, (LOOKING WEST).
The Pyramids in the distance

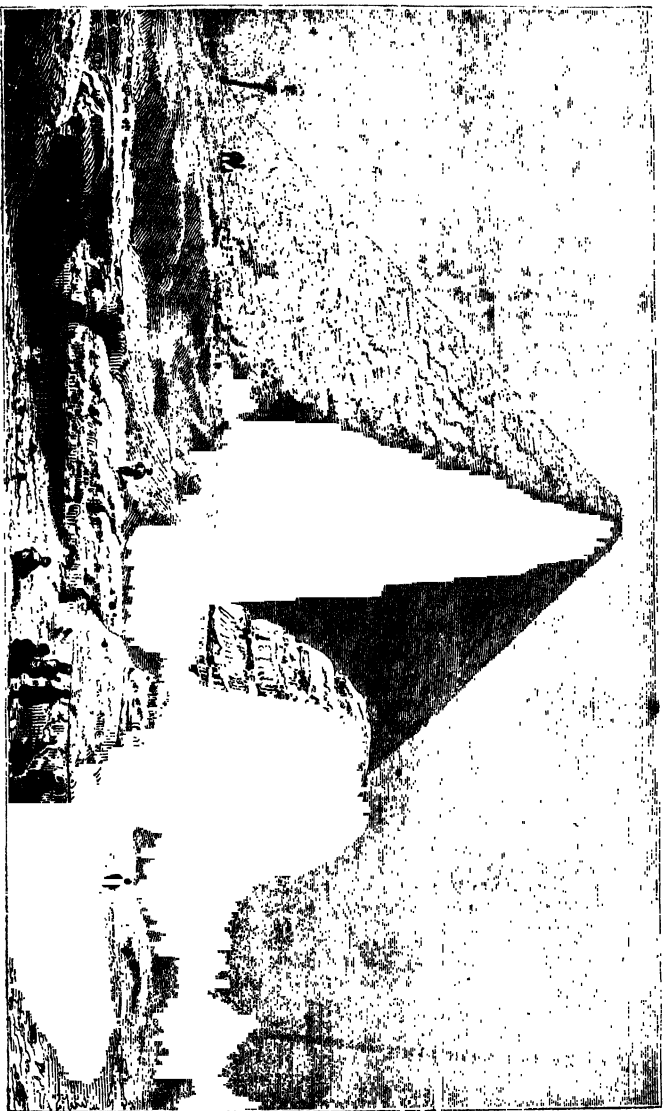
"The view from the top," says Stanley, "has the same vivid contrast of life and death which makes all wide views in Egypt striking—the desert and the green plain: only the view over the desert—the African desert—being much more 'extensive here than elsewhere, one gathers in better the notion of the wide, heaving ocean of sandy billows, which hovers on the edge of the Valley of the Nile. The white line of the minarets of Cairo is also a peculiar feature—peculiar, because it is strange to see a modern Egyptian city which is a grace instead of a deformity to the view. You see also the strip of desert running into the green plain on the east of the Nile, which marks Heliop'olis and Goshen."

It is said that six million tons of stone were used in the construction of the Great Pyramid, that of Che'ops,⁸ and that its erection occupied one hundred thousand men for twenty years! The mass is not solid, but contains a series of chambers, the entrance to which is on the north side. A long, close, and 'devious passage leads to the Queen's Chamber, 17 feet long by 12 high. From thence another long passage leads to the King's Chamber, 37 feet by 17, and 20 feet high. At one end of this 'apartment stands a sarcophagus⁹ of red granite, in which the monarch of the greatest kingdom of the Earth is supposed to have been laid.

The second Pyramid, that of Chephre'nes,¹⁰ is not much inferior in size to this one, its base being 684 feet, and its height 456; but it is not in such good 'preservation. Herodotus had asserted that it contained no chambers; but Belzoni⁽¹⁾ effected an entrance to a chamber hewn out of the solid rock. In the sarcophagus he found the bones of an animal, probably the sacred bull¹¹ of the Egyp'tians. The third large Pyramid contained a mummy; the remains of which, and of its cedar coffin, were deposited in the British Museum.

There can be no doubt that all of them were 'designed as 'receptacles for the dead. Around them lie scattered about, as far as the eye can reach, both up and down the bank of the river, and along the edge of the desert for miles beyond the ruined city of Memphis,¹² numberless edifices and tumuli¹³ of a monumental character, some of which were once profusely 'embellished with sculptures, and in which mummies¹⁴ have been found.

In front of the Pyramid of Chephrenes stands the great Sphinx,¹⁵—the hugest marvel of sculpture which the world has ever seen. For centuries this colossal wonder lay almost 'sub-



THE SPHINX AND THE PYRAMID OF CHEPHRENS.

merged beneath the sand-drift of the desert. Caviglia¹⁶ undertook the laborious task of uncovering it; in the course of which he made some important discoveries, tending to show that there was anciently a temple on the area beneath the stony gaze of the colossal 'countenance, and an altar upon which sacrifices were offered. The features are Nubian, or rather ancient Egyptian, and their expression is strikingly calm and 'benignant.

"There was something," says Stanley, "stupendous in the sight of that enormous head—its vast projecting wig, its great ears, its open eyes, the red colour still visible on its cheeks, the immense projection of the lower part of its face. Yet what must it have been when on its head there was the royal helmet of Egypt, on its chin the royal beard; when the stone pavement by which man approached the Pyramids ran up between its paws; when immediately under its breast an altar stood, from which the smoke went up into the gigantic nostrils of that nose, now 'vanished from the face, never to be conceived again! All this is known with certainty from the remains which actually exist deep under the sand on which you stand, as you look up from a distance into the broken but still 'expressive features."—In regard to the Sphinx we may add, that so continuous is the drift of sand from the desert, that nearly all those portions of the figure which modern investigators have at different times laid bare have been again covered.

STANLEY.

apart'ment, room.	embel'lished, ornament'ed.	occa'sional, irreg'ular.
'benig'nant, kind.	expres'sive, intel'ligent.	preserva'tion, keep'ing;
construc'tion, erec'tion.	exten'sive, wide.	entirety.
countenance, face.	imag'ines, fan'cies.	rec'eptacles, depos'itories.
deform'ity, blem'ish.	inher'itance, posses'sion.	submerged', buried.
designed', intend'ed.	in'terludes, interven'ing	succes'sive, in a se'ries.
de'vious, wind'ing.	spaces.	sur'face, a'rea.
disconnec'tion, separa'tion.	intermin'gling, mix'ing.	van'ished, disappeared'.

¹ Min'arets, tall, slender turrets, on Mohammedan mosques, surrounded by balconies, from which the people are summoned to prayer, not by bells, but by a crier, called a muezzin.

² Am'rou, a famous Saracen general who conquered Syria and Egypt, and died at Cairo in 663 A.D.—Saladin was Sultan of Egypt and Syria in the twelfth century. He opposed the Christians in the third Crusade.

³ Stonehenge, a collection of huge stones arranged in two concentric circles, on Salisbury Plain, Wiltshire. The stones are 140 in number, some of them 20 feet high, with in some cases stones of equally

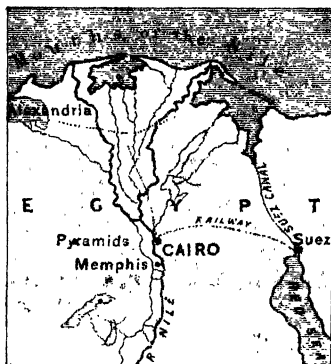
large dimensions resting upon them. They are certainly ancient British remains; but whether they were designed for Druidical worship, or as sepulchral memorials, cannot be determined.

⁴ The Colisæ'um, an immense amphitheatre at Rome, elliptical in form, in which fights with wild beasts and other sports were exhibited. It is said to have accommodated 80,000 spectators at one time. It was built between 75 and 80 A.D.

⁵ The Campag'na (*Cam-pan'-ya*), a wide and desolate plain in the neighbourhood of Rome.

⁶ The tombs of the Pharaohs.—The

Pyramids were the tombs of the Pharaohs, or kings, of Egypt. As soon as a Pharaoh began to reign, his pyramid was begun.



⁷ Cal'iphs, the chief rulers of the Saracens. The word *Caliph* means "successor,"

and was adopted by the first successor of Mohammed.

⁸ Che'ops (*Ke'-ops*).—Various dates are assigned to the reign of this Pharaoh. The latest is 1082 B.C.

⁹ Sarcophagus, a stone coffin. The word means "flesh-eater," and was applied by the Greeks to a kind of limestone which consumed the human body, and of which coffins were therefore made.

¹⁰ Chephr'enes (*Kef-re'-nes*) was the second in succession from Cheops.

¹¹ The sacred bull.—Animal worship prevailed in Egypt from the earliest times. The animal which they held most sacred was the bull, or Apis.

¹² Mem'phis, one of the most ancient cities in the world, "of which the very ruins are tremendous."

¹³ Tu'muli, sepulchral mounds.

¹⁴ Mum'ies, dead bodies embalmed.

¹⁵ The Sphinx.—It consists of a colossal human head and a lion's body. The length of the body is 172 feet; its height is 56.

¹⁶ Cavigli'ia (*Ca-veel'-ya*), an Italian, who carefully examined the Sphinx in 1816.

QUESTIONS.—Whence is the best view of Cairo and its vicinity obtained? What is the general aspect of the town? What is very striking in the situation of the Pyramids? What is the height of the Great Pyramid? What contrast does the view from the top of it present? How long was it in building? What does it contain? What were found in the chamber of the second Pyramid? For what purpose were the Pyramids designed? What is the Sphinx? Where does it stand?

FAMILY WORSHIP.

FROM "THE COTTAR'S SATURDAY NIGHT."

THE cheerfu' supper done, wi' serious face
 They round the 'ingle form a circle wide;
 The sire turns o'er, wi' patriarchal grace,
 The big ha'-Bible, ance his father's pride:
 His bonnet 'reverently is laid aside,
 His 'lyart 'haffets 'wearin' thin and bare;
 Those strains that once did sweet in Zion glide,
 He 'wales a portion with 'judicious care;
 And "Let us worship God," he says, wi' solemn air.....

The priest-like father reads the sacred page,
 How Abraham was the friend of God on high;
 Or, Moses bade eternal warfare wage
 With Amalek's¹ 'ungracious 'progeny;
 Or how the royal bard² did groaning lie

Beneath the stroke of Heaven's 'avenging ire ;
 Or, Job's 'pathetic plaint and wailing cry ;
 Or rapt Isaiah's wild, 'seraphic fire ;
 Or other holy seers that tune the sacred lyre.

Perhaps the Christian volume³ is the theme,—
 How 'guiltless blood for guilty man was shed ;
 How He who bore in heaven the second name
 Had not on earth whereon to lay His head :
 How His first 'followers and servants sped ;
 The 'precepts sage they wrote to many a land :
 How he, who lone in Patmos⁴ banish'd,
 Saw in the sun a mighty angel stand,
 And heard great Babylon's doom 'pronounced by Heaven's
 command.

Then kneeling down to heaven's eternal King,
 The saint, the father, and the husband prays :
 Hope "springs exulting⁵ on 'triumphant wing,"
 That thus they all shall meet in future days ;
 There ever bask in uncreated rays,
 No more to sigh, or shed the bitter tear,
 Together 'hymning their Creator's praise,
 In such society, yet still more dear,
 While 'circling time moves round in an eternal sphere.....

Then homeward all take off their several way ;
 The 'youngling cottagers retire to rest :
 The parent pair their secret 'homage pay,
 And 'proffer up to Heaven the warm request,
 That He who stills the raven's 'clamorous nest,
 And decks the lily fair in flowery pride,
 Would, in the way His wisdom sees the best,
 For them and for their little ones 'provide ;
 But chiefly in their hearts with grace divine preside.

ROBERT BURNS.

aveng'ing, retrib'utive.
 cir'cling, revolv'ing.
 clam'orous, no'isy.
 fol'lowers, disc'ples.
 guilt'less, sin'less.
 haf'fets, temples ; sides of
 the head.
 hom'age, devotion.
 hym'ning, sing'ing.

in'gle, fire-place.
 judi'cious, sagacious.
 ly'art, gray.
 pathet'ic, touch'ing
 patriarch'al, pater'nal.
 pre'cepts, maxims.
 prof'fer, offer.
 prog'eny, chil'dren.
 pronounced', proclaimed'.

provide', furnish the means
 of life.
 rev'erently, devout'ly.
 seraph'ic, angel'ic
 triumph'ant, exult'ing.
 ungra'cious, unfriend'ly.
 wales, select's.
 wea'r'in', turn'ing.
 young'ling, very young.

¹ Am'alek.—The Amalekites, who dwelt between the Dead Sea and the Red Sea, attacked the Israelites shortly after they had crossed the latter. (See *Exodus*, xvii. 8-16.)

² The royal bard,—King David. (See *2 Samuel*, xii. ; and *Psalms* xxxii.)

³ The Christian volume, the New Testament.

⁴ He, who lone in Patmos.—John, the apostle and evangelist, who wrote the Apocalypse in the Isle of Patmos.

⁵ "Springs exulting," &c. — From Pope's *Windsor Forest*.

THE VALLEY OF THE NILE.

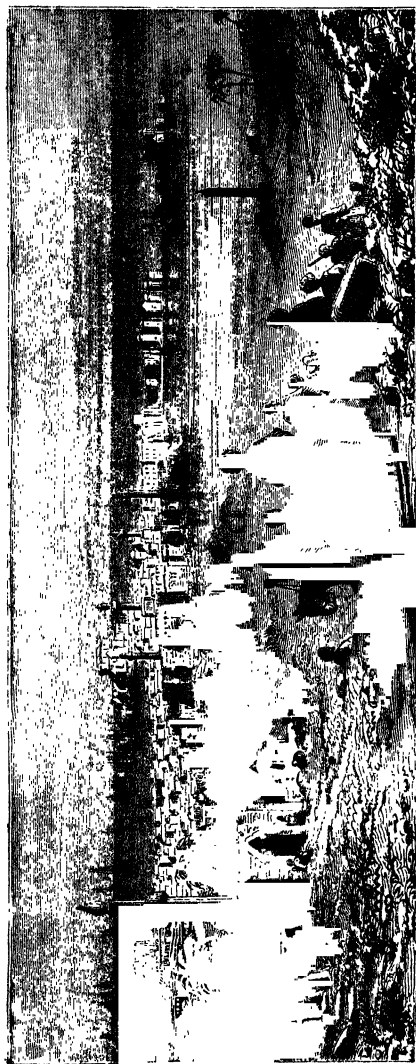
EGYPT may be said to owe its very existence as a habitable country to the presence of the Nile. The course of that magnificent river has now been traced to great lakes¹ lying across the Equator, more than two thousand miles south of Alexandria in a direct line. After receiving its two Abyssinian branches, at Khartoum and at Berber in Nubia, it pours the broad, deep volume of its waters through a flat, alluvial valley for fifteen hundred miles without being increased by any other tributary, and finally discharges itself by two principal channels and several minor outlets into the sea.

The whole of the cultivable soil of Egypt, with the exception of the oases² of the desert, consists of the meadow-land on either bank of this noble river; and it varies in width from five to one hundred and fifty English miles. It has been renowned for its fertility from the earliest ages, and was long rightly regarded as the granary of the ancient world. Even at the present day its fruitfulness is without a parallel in any region of like extent.

This fruitfulness is consequent upon the periodic inundations of the river. Although there is little or no rain in Egypt, there are continuous and heavy rains at the sources of the Nile. These begin to fall in March, and being supplemented by the melting of the mountain snows in the following months, occasion a perceptible rise in the river about the end of June. From this period to the close of September, the rise increases with a regularity almost certain and constant, at a rate of four inches a day.

When the flood is at the highest, the whole valley and delta³ of the Nile appear as a vast inland sea, dotted with towns and villages, and scattered mounds, barely emerging from the surface. At this season all communication has to be maintained by boats, save where, between places of importance, a few viaducts have been raised. Between September and December the river subsides, and the land is tilled; and by June the harvest has been reaped. But the cultivators of Egypt need not limit their labours to the production of a single crop: in lands advantageously situated as many as three crops are annually raised by means of artificial irrigation, managed by water-wheels of the simplest construction; the crops being chiefly grain, cotton, and indigo.⁴

Alexandria, the capital of Lower Egypt, and its chief mercantile port, is but a desolate and wretched-looking city, not-



withstanding the advantages it has of late years derived from its position in the route of the overland journey to India. The Turkish quarter is yet most filthy and unwholesome, and the mass of the inhabitants are to all appearance plunged in squalor and poverty. This town, which, from its fine harbour, has been termed "The key of Egypt," does not stand on the site of the famous city built by Alexander the Great, which, according to Pliny, was fifteen miles in circuit, and contained three hundred thousand inhabitants. The ancient city, which was burnt to ashes, with its world-renowned library, by the Kaliph Omar, in the year 640, stood to the south of the present Alexandria, on a site which is now covered for the space of six or seven miles in circuit with a confused mass of ruins. Here stands the famous Pompey's Pillar;⁶

and hence it was that many of the spoils which enrich the public places and the museums of European cities were derived.

The English traveller in Egypt is generally willing to get away from Alexandria as soon as he can, and that for 'sanitary reasons. Cairo * is distant some hundred miles, and the route thither lies either along the famous canal made by order of Mehemet Ali⁶ in 1819-20, or along the railway, which has brought the city of Saladin⁷ within a few hours of the coast.

On 'approaching Cairo by way of the Nile, the Pyramids are first seen from a point in the river, here about a mile in width, near the separation of the two great branches which form the delta of Lower Egypt, about ninety miles from their outlets at the coast. Standing on the western bank of the river, on a platform 'elevated some fifty feet above the surrounding level, they form most striking and 'suggestive objects, even when viewed from a great distance.

In the neighbourhood of the Pyramids are the ruins of Memphis, the ancient capital of Lower Egypt, and the residence of the Pharaohs at the time of the exodus of the Jews. "For miles," says Dean Stanley, "you walk through layers of bones and skulls and mummy 'swathings, extending from the sand, and deep down in shaft-like mummy-pits; and among these mummy-pits are vast galleries filled with mummies of ibises,⁸ in red jars, which are being gradually 'despoiled. Lastly, there are long galleries, only recently discovered, hewn in the rock, and opening from time to time—say every fifty yards—into high arched vaults, under each of which stands the most magnificent black marble sarcophagus⁹ that can be 'conceived—a chamber rather than a coffin—smooth, and 'sculptured within and without; grander by far than even the granite sarcophagi of the Theban kings—how much grander than any human sepulchres anywhere else; and all for the successive corpses of the bull Apis!"¹⁰

Continuing a course against the stream, the traveller passes many interesting scenes,—the great corn tract of Faïoum, pits packed with crocodile mummies, rock tombs 'excavated in the face of the mountains, magnificent ruins and scattered monuments, as at Dendera and Thebes. One hundred miles above Thebes he reaches the first cataract (of which there are seven in all), and the town of Assouan on the borders of Nubia.

The course of the Nile through the territory of Nubia presents

* See lesson on *Cairo and the Pyramids*, p. 136.

considerable modifications in the scenery. For the most part the river is shut in by hills of granite and sandstone. The valley between these is arid, barren, sun-baked. It has the dull, leaden aspect of a desert. A few stunted palms are the only traces of vegetation that the eye can discover. Cultivation is nearly impossible, except here and there within a narrow strip of land on either side of the river. In some parts it is painfully carried on by means of irrigation—the water-wheels being worked by oxen, on whose labours those of the husbandman depend for success.

The traveller now finds himself beyond the domain of history; and though he constantly passes both town and temple in never-ending series, he knows of no interest connected with them apart from that which usually attaches to the ruins of the past. He feels now that the Nile itself is the greatest marvel of his journey; which, although rolling along at the distance of eight hundred miles from the sea, has lost nothing of its volume or its majesty.

At this long distance from the coast of the Mediterranean he arrives at Ipsambul, or Abou-Simbel. Here, on the confines of the pathless and unpeopled desert, stands one of Egypt's most striking marvels—the Temple of the Sun, built by Rameses,¹¹ whose gigantic statue sits there in the solitude, still unbroken, and revealed from head to foot. This statue is repeated four times: two are buried in the sand, and the third is overthrown and in fragments; but from the fourth still looks down the face of the greatest man of the old world, who flourished long before the rise of Greece and Rome—the first conqueror recorded in history—the glory of Egypt, the terror of Asia—the second founder of Thebes, which must have been to the world then what Rome was in the days of her empire.

"The chief thought," says Dean Stanley, "that strikes one at Ipsambul, and elsewhere, is the rapidity of transition in Egyptian worship from the sublime to the ridiculous. The gods alternate between the majesty of antediluvian angels and the grotesqueness of pre-Adamite monsters. By what strange contradiction could the same sculptors and worshippers have conceived the grave and awful forms of Ammon¹² and Osiris,¹³ and the ludicrous images of gods in all shapes 'in the heavens and in the earth, and in the waters under the earth,' with heads of hawk, and crocodile, and jackal, and ape? What must have been the mind and muscle of a nation who could worship, as at Thebes, in the assemblage of hundreds of colossal *Pashts*—the sacred cats?

THE Nile in NUBIA.



"And again: how extraordinary the contrast of the 'serenity and the savageness of the kings! Rameses, with his placid smile, grasping the shrieking captives by the hair, is the 'frontispiece of every temple; and Ammon, with a smile no less placid, is giving him the 'falchion to smite them. The whole impression is that gods and men alike belong to an age and world entirely passed away, when men were slow to move, slow to think; but that when they did move or think, their work was done with the force and violence of giants. One emblem there is of true monotheism¹⁴—a thousand times repeated—always 'impressive and always beautiful—chiefly on the roof and cornice, like the cherubim in the Holy of Holies—the globe with its wide-spread wings of 'azure blue, of the all-embracing sky: 'Under the shadow of Thy wings shall be my refuge.'"

Beyond Ipsambul, the Nile comes floating, not through mountain passes, but through an absolute desert. The second cataract, by stopping the navigation, terminates the 'explorations of ordinary travellers; nor is there much beyond to tempt inquiry. In the dim distance two 'isolated mountains mark the route to Dongola, and they are often veiled in the clouds of sand driven upwards by the winds over the wide expanse of the desert.

advan'tages, ben'efits.
allu'vial, depos'ited by
water.
antedilu'vian, before the
De'luge.
approach'ing, near'ing.
cir'cuit, circum'ference.
colos'sal, gigan'tic.
communica'tion, in'ter-
course.
conceived', imagined.
con'fines, bound'aries.
cul'tivators, agricul'turists.
derived', obtained'.
despoiled', robbed.
discharge's, empties.

domain', re'gion.
el'euated, raised.
ex'cavated, hol'lowed out.
exist'ence, being.
explora'tions, research'es.
falch'ion, sword
fron'tispiece, decora'tion
in front.
fruit'fulness, fertil'ity.
c'mpres'sive, affect'ing.
inunda'tions, over'flowings.
irriga'tion, artifi'cial water-
i'solated, 'etached'. [ing.
lu'dicrous, exciting laugh-
mar'vel, wonder. [ter.
modifica'tions, changes.

percep'tible, no'ticeable.
record'ed, men'tioned.
regular'ity, uniform'ity.
renowned', fa'mous.
san'itary, affecting health.
sculp'tured, carved.
seren'ity, calm'ness.
sol'itude, lone'liness.
squal'or, foul'ness.
suggest'ive, stim'ulating
thought.
supplement'ed, augment'ed
swath'ings, grave-clothes.
transi'tion, pas'sage.
trib'utary, afflu'ent.
vegeta'tion, plant-growth.

¹ Great lakes, namely, the Victoria Ny-
anza and Albert Nyanza.

² O'ases.—Of these there are several in
Egypt. The principal of them are—the
Great Oasis, west of Thebes; the *Western
Oasis*, still farther west; and the *Lesser
Oasis*, half-way between the latter and
the sea.

³ Delta.—The triangular tract of land
between two of the mouths of the Nile is
so called. It received its name from its re-
semblance to the Greek letter *delta* (Δ).

⁴ In'digo, a plant which yields a valu-
able blue dye.

⁵ Pompey's Pillar.—See lesson on *The
Overland Route*, p. 130, and Note 7.

⁶ Mehemet Ali, a famous pasha of
Egypt, who began life as a shopkeeper.
He rose chiefly with the help of the Mame-
luks; and he massacred them in 1811.
(See *OUTLINES OF HISTORY*, Nelsons'
School Series.) Mehemet Ali died at Cairo
in 1849.

⁷ Sal'adin, a celebrated sultan of Egypt

in the twelfth century, who distinguished himself in the time of the Crusades.

⁶ **Thises.**—The ibis (a wading bird) was held sacred by the Egyptians.

⁹ **Sarcophagus**, a stone coffin. (See lesson on *Cairo and the Pyramids*, Note 9.) The plural, *sarcophagi*, is used two lines below.

¹⁰ **The bull Apis.**—See lesson on *Cairo and the Pyramids*, Note 11.

¹¹ **Rameses.**—The third of that name,

called also Sesostris, who conquered Arabia, Asia Minor, Persia, and India. He is said to have flourished about 1618 B.C.

¹² **Ammon**, the chief god of the Thebans, to whose worship the temples of Luxor and Karnac were dedicated.

¹³ **Osiris**, the supreme god of the ancient Egyptians, sometimes identified with the sun, and commonly worshipped under the symbol of a sacred bull called Apis.

¹⁴ **Mon'otheism**, belief in a single God.

QUESTIONS.—What makes Egypt a habitable country? How far has the course of the Nile been traced? What is the breadth of the cultivable Nile Valley? For what has that valley always been famous? Upon what is its fruitfulness consequent? When does the river begin to rise? What causes the inundation? When is it at its highest? When is the land tilled? When is the harvest reaped? How many crops are sometimes obtained in one year? What crops are chiefly grown? What is the capital of Lower Egypt? What is its character? Where are the ruins of the ancient city? When was it destroyed? What are the two modes of reaching Cairo? From what point are the Pyramids first seen? What was the ancient capital of Lower Egypt? Where are its ruins? What were recently discovered there? How far is the first cataract above Thebes? How many cataracts are there? What generally shuts in the Nile Valley in Nubia? What is the character of the country there? How is cultivation there carried on? What, above this, is the greatest marvel to be seen? What remarkable place stands eight hundred miles from the Mediterranean? What great temple is at Ipsambul? And what gigantic statue?

THE LADY OF THE LAKE.*

The scene of this poem is laid in the vicinity of Loch Katrine, in the Highlands of Scotland.—Time, about 1530.

PART I.

A SOLITARY huntsman, who had 'outstripped his comrades, and missed the stag he was pursuing, was brought to a sudden halt by the death of his horse, from 'exhaustion, in the heart of the Trossachs.' He blew a loud blast of his horn, to recall the hounds, now crippled and sulky, from their vain pursuit. He then hied on foot, to search for any of the hunting party who might be near. Yet he often paused on his way, so strange and 'wondrous' were the scenes around him.

The western waves of ebbing day
 Rolled o'er the glen their level way;
 Each purple peak, each flinty spire,
 Was bathed in floods of living fire.
 But not a setting beam could glow
 Within the dark ravine below,
 Where twined the path, in shadow hid,
 Round many a rocky 'pyramid,
 Shooting abruptly from the dell
 Its thunder-splintered 'pinnacle.

* Abridged from *The Scott Reader*, in Nelsons' ROYAL SCHOOL SERIES

With boughs that quaked at every breath,
 Gray birch and aspen wept beneath;
 Aloft, the ash and warrior oak
 Cast anchor² in the rifted rock;
 And, higher yet, the pine-tree hung
 His 'shattered trunk, and frequent flung,
 Where seemed the cliffs to meet on high,
 His boughs athwart the narrowed sky.
 Highest of all, where white peaks glanced,
 Where 'glistening streamers waved and danced,
 The wanderer's eye could barely view
 The summer heaven's 'delicious blue;
 So wondrous wild, the whole might seem
 The scenery of a fairy dream.....

And now, to issue from the glen,
 No pathway meets the wanderer's ken,
 Unless he climb, with footing nice,
 A far 'projecting precipice.
 The broom's tough roots his ladder made,
 The hazel saplings lent their aid;
 And thus an airy point he won,
 Where, gleaming with the setting sun,
 One 'burnished sheet of living gold,
 Loch Katrine lay beneath him rolled;—
 In all her length far winding lay,
 With 'promontory, creek, and bay;
 And islands that, empurpled bright,
 Floated amid the livelier light;
 And mountains, that like giants stand,
 To sentinel enchanted land.
 High on the south, huge Ben-venue³
 Down on the lake in masses threw
 Crags, knolls, and mounds, 'confusedly hurled,—
 The fragments of an earlier world;
 A 'wilderer forest, feathered o'er
 His ruined sides and summit hoar;
 While on the north, through middle air,
 Ben-an⁴ heaved high his forehead bare.

Having gazed for a time in rapture and amazement on this scene, he descended towards the lake, and again sounded his bugle, in the hope of signalling some straggler of the hunting train.

But scarce again his horn he wound,
 When, lo! forth starting at the sound,
 From underneath an aged oak,
 That slanted from the islet rock,
 A damsel guider of its way,
 A little skiff shot to the bay,

That round the promontory steep
 Led its deep line in graceful sweep,
 Eddying, in almost viewless wave,
 The weeping-willow twig to lave,
 And kiss, with whispering sound and slow,
 The beach of pebbles bright as snow.
 The boat had touched this silver strand^d
 Just as the Hunter left his stand,
 And stood 'concealed amid the brake,
 To view this LADY OF THE LAKE.
 The maiden paused, as if again
 She thought to catch the distant strain.
 With head up-raised, and look intent,
 And eye and ear attentive bent,
 And locks flung back, and lips apart,
 Like monument of Grecian art,
 In listening mood she seemed to stand,
 The guardian Naiad^e of the strand.

And ne'er did Grecian chisel trace
 A Nymph, a Naiad, or a Grace,
 Of finer form or lovelier face!
 What though the sun, with ardent frown,
 Had slightly tinged her cheek with brown?—
 The 'sportive toil, which, short and light,
 Had dyed her glowing hue so bright,
 Served, too, in hastier swell to show
 Short glimpses of a breast of snow:
 What though no rule of courtly grace
 To measured mood had trained her pace?—
 A foot more light, a step more true,
 Ne'er from the heath-flower dashed the dew;
 E'en the slight hare-bell raised its head,
 Elastic, from her airy tread! •
 What though upon her speech there hung
 The accents of the mountain tongue?—
 Those silver sounds, so soft, so dear,
 The listener held his breath to hear!

A chieftain's daughter seemed the maid;—
 Her satin snood,^f her silken plaid,
 Her golden brooch, such birth betrayed.
 And seldom was a snood amid
 Such wild 'luxuriant ringlets hid,
 Whose glossy black to shame might bring
 The plumage of the raven's wing;
 And seldom o'er a breast so fair
 Mantled a plaid with modest care;
 And never brooch the folds combined
 Above a heart more good and kind.

Her kindness and her worth to spy,
 You need but gaze on Ellen's eye :
 Not Katrine, in her mirror blue,
 Gives back the shaggy banks more true,
 Than every free-born glance confessed
 The 'guileless movements of her breast ;
 Whether joy danced in her dark eye,
 Or woe or pity claimed a sigh,
 Or filial love was glowing there,
 Or meek devotion poured a prayer,
 Or tale of injury called forth
 The indignant spirit of the North.
 One only passion, 'unrevealed,
 With maiden pride the maid concealed,
 Yet not less purely felt the flame ;—
 Oh ! need I tell that passion's name ?

Impatient of the silent horn,
 Now on the gale her voice was borne :—
 " Father ! " she cried ;—the rocks around
 Loved to prolong the gentle sound.
 A while she paused, no answer came :—
 " Malcolm, was thine the blast ? "—the name
 Less 'resolutely uttered fell,
 The echoes could not catch the swell.
 " A stranger I," the Huntsman said,
 Advancing from a hazel shade.
 The maid, alarmed, with hasty oar
 Pushed her light shallop⁶ from the shore ;
 And when a space was gained between,
 Closer she drew her bosom's screen,
 (So forth the startled swan would swing,
 So turn to prune his ruffled wing ;)
 Then safe, though 'fluttered and amazed,
 She paused, and on the stranger gazed.
 Not his the form, nor his the eye,
 That youthful maidens wont to fly.....

The maid is Ellen Douglas, the "Lady of the Lake," daughter of Lord James Douglas, who is 'proscribed, along with his uncle the Earl of Angus, and other members of his family. Now reassured, she offered the stranger the 'hospitality of her father's hut, and they rowed together to the island on which it stood, not far from the shore.

On this lonely and 'secluded island ("Ellen's Isle") James of Douglas was sheltered by the famous Highland outlaw Roderick Dhu. Roderick's mother, Dame Margaret, who is sister-in-law of Douglas, was the graceful mistress of the island home, where, in Douglas's absence, she entertained the Huntsman hospitably for the night. The guest failed to discover who his entertainers were ; and he represented himself simply as "the Knight of Snowdown, James Fitz-James."

In the morning Fitz-James took his departure, under the guidance of a stalwart Highlander. The manner of his leave-taking put Ellen's fidelity to Malcolm Græme to a severe test. But there is another claimant for her hand, in the person of her cousin, Roderick Dhu. To Allan-bane, however, the white-haired minstrel, who has attended her family in weal and in woe, she declares that she will never be the wife of Roderick; for, though her gratitude to him is strong, she can never love him.

By-and-by four barges, with colours flying and pibrochs sounding, approached the island, bearing Roderick and his followers. While they were landing, Ellen heard her father's bugle on the shore. She set off in her skiff to meet him, and found that he was accompanied by her lover, Malcolm Græme.

Arrived on the island, they passed the morning in talk and sport; but at noon a messenger brought tidings to Roderick that the King, having subdued the Border chieftains, was preparing to attack the Highland freebooters, especially those amongst whom the outlawed Douglas was believed to be concealed.

Douglas at once proposed to withdraw with his daughter from Roderick's protection, and advised the latter to submit to the King. Roderick demanded the hand of Ellen and the alliance of Douglas against the King. Douglas refused both. Roderick, connecting the refusal of Ellen's hand with the favour she showed for Græme, rudely quarrelled with the latter, and bloodshed was prevented only by the interference of Douglas.

accompanied, attended.
alliance, confederacy.
burnished, polished.
concealed, hid'den.
confusedly, wildly.
delicious, delightful.
ed dying, receding.
exhaustion, weariness.
flut'ered, confused'.
glis'tening, gleam'ing.

guid'ance, conduct.
guileless, innocent.
hospitality, entertain'-
ment.
luxuriant, profuse'.
outstripped', left behind.
pin'nacle, sum'mit.
project'ing, overhang'ing.
promontory, headland.
proscribed', outlawed.

pursu'ing, hunt'ing.
pyr'amid, huge cone.
res'olutely, boldly.
secl'ud'ed, sol'itary.
shat'tered, shiv'ered.
sportive, play'ful.
unrevealed', undivulged'.
wil'dering, ma'zy.
withdraw', retire'.
won'drous, mar'vellous.

¹ Tros'achs,—lit. "the bristled territory,"—is the Gaelic name for the district between Loch Achray and Loch Katrine, in the south-west of Perthshire.

² Warrior oak cast anchor.—From the reference to *anchoring*, it appears that the oak is called *warrior* because of its use till lately in building ships of war.

³ Ben-venue', the mountain which overlooks the Trosachs and Loch Katrine on the south.

⁴ Ben-an', on the north of the Trosachs and Loch Katrine.

⁵ The silver strand.—The beach of Loch Katrine in the bay referred to, which is covered with white pebbles, is now called "The silver strand."

⁶ Nai'ad, goddess of the lake. The Naiads, in Greek mythology, were the nymphs of fountains and streams.

⁷ Snood, a head-band worn by maidens in Scotland to bind up the hair.

⁸ Shal'lop, properly a schooner-rigged boat, with two masts; but here used for a skiff, a light cobble. *Shallop* is the same word as *sloop*.

THE LADY OF THE LAKE.

PART II.

NEXT morning Roderick sent forth the Fiery Cross¹ to summon his followers to Lanrick Mead, by the margin of Loch Vennachar. Malise, Roderick's henchman, flew with the fatal symbol along the side of Loch Achray. When he reached Duncraggan's² huts, he heard the coronach, or funeral song, of the aged chieftain. Nevertheless, his stripling son, young Angus, was bound to belt on his father's sword, and speed him forth with the Fiery Cross.

Ben-ledi³ saw the Cross of Fire;
 It glanced like lightning up Strath-Ire.⁴
 O'er dale and hill the summons flew—
 Nor rest nor pause young Angus knew;
 The tear that gathered in his eye
 He left the mountain breeze to dry,
 Until, where Teith's young waters roll
 Betwixt him and a wooded knoll
 That graced the sable strath with green,
 The chapel of Saint Bride was seen.⁵
 Swoln was the stream, 'remote the bridge,
 But Angus paused not on the edge;
 Though the dark waves danced dizzily,
 Though reeled his sympathetic eye,
 He dashed amid the torrent's roar:
 His right hand high the crosslet bore,
 His left the pole-axe grasped, to guide
 And stay his footing in the tide.
 He stumbled twice—the foam splashed high,
 With hoarsen swell the stream raced by;
 And had he fallen—for ever there,
 Farewell Duncraggan's orphan heir!
 But still, as if in parting life,
 Firmer he grasped the Cross of strife,
 Until the opposing bank he gained,
 And up the chapel pathway strained.

A bridal party was issuing from the chapel. He put the signal into the hand of the bridegroom, Norman, heir of Armandave, who tore himself from the arms of his new-made bride, and glanced off "like fire from flint" with the bloody summons in his hand. So the Cross of Fire was passed from hand to hand, and from hamlet to hamlet, till all Clan-Alpine's adherents were summoned.

The same morning, Douglas, true to his resolution, left the island with Ellen and Allan-bane, and took refuge in the Goblin's Cave, in the darkest cleft of Ben-venue.

Meantime Roderick had taken counsel of his hermit-monk, who tried an augury, resulting in the hopeful promise—

“ Which spills the foremost foeman's life,
That party conquers in the strife.”

The next day, while Ellen and Allan-bane were conversing in the ‘neighbourhood of their cave, they were startled by the appearance of Fitz-James, who had been led to them by the same guide (Murdoch) who had conducted him when he left the isle. The knight declared his love for Ellen, and asked her to fly with him to Stirling. She told him that her heart was already given to a noble youth (Malcolm Græme), who was risking his life for her and hers. This ‘confidence changed the knight's love into sympathy, and he gave her a ring which the King had given him for saving his life, by ‘presenting which to the King she would obtain any boon she might ask.

Before Fitz-James departed, Ellen hinted to him her ‘suspicions of the faithfulness of his guide. These suspicions were confirmed when they met Blanche of Devan, a half-crazed woman, whom Roderick had taken captive on her bridal morning in a Lowland fray in which her husband was slain.

Blanche's hints and ‘gestures, following a loud whoop which Murdoch had given, led Fitz-James to charge the latter with ‘treachery. Murdoch fled, but, turning in his flight, discharged an arrow at Fitz-James, which grazed his crest and thrilled in Blanche's heart.

Fitz-James pursued and slew Murdoch, and returned to tend the dying maid. He found on her breast a braid of her bridegroom's hair. Twining it with a lock of her own, he dipt it in her blood, and placing it in his bonnet, vowed to wear no other favour till he had ‘imbrued it in the blood of Roderick Dhu.

Wandering onwards alone, but now cautiously and watchfully, he came, when darkness had set in and he was ‘famished and chilled, to a huge rock, on turning the point of which he found a watch-fire burning close beside him.

Beside its embers red and clear,
Basked, in his plaid, a ‘mountaineer;
And up he sprang with sword*in hand,—
“ Thy name and purpose? Saxon, stand!”—
“ A stranger.”—“ What dost thou require?”—
“ Rest and a guide, and food and fire.
My life's beset, my path is lost,
The gale has chilled my limbs with frost.”—
“ Art thou a friend to Roderick?”—“ No.”—
“ Thou darrest not call thyself a foe?”—
“ I dare! to him and all the band
He brings to aid his ‘murderous hand.”—
“ Bold words!—but, though the beast of game
The privilege of chase may claim—
Though space and law the stag we lend,
Ere hound we slip, or bow we bend—
Who ever recked, where, how, or when,
The ‘prowling fox was trapped or slain?

Thus treacherous scouts,—yet sure they lie,
 Who say thou camest a secret spy !”—
 “ They do, by Heaven !—Come Roderick Dhu,
 And of his clan the boldest two,
 And let me but till morning rest,
 I write the ‘ falsehood on their crest.’—
 “ If by the blaze I mark aright,
 Thou bear’st the belt and spur of knight.”—
 “ Then by these tokens mayst thou know
 Each proud oppressor’s ‘ mortal foe.’—
 “ Enough, enough ; sit down, and share
 A soldier’s couch, a soldier’s fare.”

He gave him of his Highland cheer,
 The hardened flesh of mountain deer ;
 Dry fuel on the fire he laid,
 And bade the Saxon share his plaid.
 He tended him like welcome guest,
 Then thus his further speech addressed :—
 “ Stranger, I am to Roderick Dhu
 A clansman born, a kinsman true ;
 Each word against his honour spoke,
 Demands of me avenging stroke ;
 Yet more—upon thy fate, ’tis said,
 A mighty augury is laid.
 It rests with me to wind my horn,—
 Thou art with numbers ‘ overborne ;
 It rests with me, here, brand to brand,
 Worn as thou art, to bid thee stand :
 But not for clan or kindred’s cause
 Will I depart from honour’s laws ;—
 To assail a wearied man were shame,
 And stranger is a holy name ;
 Guidance and rest, and food and fire,
 In vain he never must require.
 Then rest thee here till dawn of day ;
 Myself will guide thee on the way,
 O’er stock and stone, through watch and ward,
 Till past Clan-Alpine’s outmost guard,
 As far as Coilantogle’s ford ;⁸
 From thence thy ‘ warrant is thy sword.’—
 “ I take thy courtesy, by Heaven,
 As freely as ’tis nobly given !”—
 “ Well, rest thee ; for the bittern’s cry
 Sings us the lake’s wild ‘ lullaby.’—
 With that he shook the gathered heath,
 And spread his plaid upon the wreath ;
 And the brave foemen, side by side,
 Lay peaceful down, like brothers tried,

And slept until the dawning beam
 'Purpled the mountain and the stream.....

au'gury, o'men.
 con'fidence, trust'fulness.
 false'hood, lie.
 fam'ished, hun'gry.
 ges'tures, ac'tions.
 hench'man, squire.
 imbrued', bathed.
 lul'laby, sleep-song.

mor'tal, deadly.
 mountaineer', high'lander.
 mur'derous, bloody.
 neigh'bourhood, vicin'ity.
 overborne', overpower'ed.
 present'ing, of'fering.
 prow'ling, sneak'ing.
 pur'pled, dyed.

remote', dis'tant.
 resolu'tion, pur'pose.
 strip'ling, youth'ful.
 sum'moned, convoked'.
 suspi'cions, fears.
 sympathet'ic, respon'sive.
 treach'ery, trea'son.
 war rant, secu'rity.

¹ **The Fiery Cross.**—This was a rude cross of light wood, the extremities of which were seared in fire and extinguished in the blood of a goat slain for the purpose. It was also called the *Cross of shame*, because disobedience to the summons implied infamy. It was delivered to a swift and trusty messenger, who ran full speed with it to the next hamlet, where he put it into the hand of the principal person, telling him the meeting-place. The latter was bound to bear it on to the next village; and thus, in an incredibly short time, it was passed through the whole of the chieftain's clan.

² **Duncrag'gan**, a hamlet between Ach-ray and Vennachar.

³ **Ben-ledi**, a lofty mountain on the north of Loch Vennachar.

⁴ **Strath-Ire**, properly the valley above Loch Lubnaig, but here applied to the whole vale of the Teith, from the Pass of Leny upwards.

⁵ **Saint Bride.**—A wooded knoll, surrounded by a wall, a short way below Loch Lubnaig, is pointed out as the site of this chapel.

⁶ **Clan-Alpine.**—Roderick's full designation is *Roderick Vich Alpine Dhu*; that is, "Black Roderick, the son of Alpine,"—*dhu* in Gaelic being "black," and *vich*, "son of."

⁷ **Devan.**—The Devan, or Devon, is a stream which flows into the Forth a few miles below Stirling.

⁸ **Coilantogle**, a farm and ford at the eastern extremity of Loch Vennachar. Its site is now occupied by sluices connected with the Glasgow water-works.

THE LADY OF THE LAKE.

PART III.

In the morning, the Highlander, bound by his promise and by the laws of hospitality, conducted Fitz-James on his way.

At length they came where, stern and steep,
 The hill sinks down upon the deep.
 Here Vennachar in silver flows—
 There, ridge on ridge, Ben-ledi rose.
 Ever the hollow path twined on,
 Beneath steep bank and threatening stone;
 An hundred men might hold the post
 With hardihood against a host.
 So toilsome was the road to trace,
 The guide, abating of his pace,
 Led slowly through the pass's jaws,
 And asked Fitz-James, by what strange cause
 He sought these wilds, traversed by few,
 Without a pass from Roderick Dhu.

- "Brave Gael, my pass, in danger tried,
 Hangs in my belt, and by my side;
 Yet, sooth to tell," the Saxon said,
 "I dreamt not now to claim its aid.
 When here, but three days since, I came,
 Bewildered in pursuit of game,
 All seemed as peaceful and as still
 As the mist 'slumbering on yon hill;
 Thy 'dangerous Chief was then afar,
 Nor soon expected back from war.
 Thus said, at least, my mountain guide,
 Though deep, perchance, the 'villain lied."—
 "But, stranger, peaceful since you came,
 Bewildered in the mountain game,
 Whence the bold boast by which you show¹
 Vich-Alpine's² vowed and mortal foe?"—
 "Enough, I am by promise tied
 To match me with this man of pride.
 Twice have I sought Clan-Alpine's glen
 In peace; but when I come agen,
 I come with banner, brand, and bow,
 As leader seeks his mortal foe.
 For love-lorn swain, in lady's bower,
 Ne'er panted for the 'appointed hour,
 As I, until before me stand
 This rebel Chieftain and his band!"
- "Have, then, thy wish!"—he whistled shrill,
 And he was answered from the hill;
 Wild as the scream of the curlew,³
 From crag to crag the signal flew.
 Instant, through copse⁴ and heath, arose
 Bounnets and spears and bended bows;
 On right, on left, above, below,
 Sprang up at once the 'lurking foe;
 From shingles gray their lances start,
 The bracken⁵ bush sends forth the dart,
 The rushes and the willow-wand
 Are 'bristling into axe and brand,
 And every tuft of broom gives life
 To plaided warrior armed for strife!
 That whistle 'garrisoned the glen
 At once with full five hundred men,
 As if the 'yawning hill to heaven
 A subterranean host had given.
 Watching their leader's beck and will,
 All silent there they stood, and still:
 Like the loose crags whose 'threatening mass
 Lay tottering o'er the hollow pass,

As if an infant's touch could urge
 Their headlong passage down the verge,
 With step and weapon forward flung,
 Upon the mountain-side they hung.
 The mountaineer cast glance of pride
 Along Ben-ledi's living side,
 Then fixed his eye and sable brow
 Full on Fitz-James—"How sayest thou now?
 These are Clan-Alpine's warriors true;
 And, Saxon—I am Roderick Dhu!"

Fitz-James was brave:—Though to his heart
 The life-blood thrilled with sudden start,
 He manned himself with dauntless air,
 Returned the Chief his haughty stare;
 His back against a rock he bore,
 And firmly placed his foot before:—
 'Come one, come all! this rock shall fly
 From its firm base as soon as I.'—
 Sir Roderick marked—and in his eyes
 Respect was mingled with surprise,
 And the stern joy which warriors feel
 In foemen worthy of their steel.
 Short space he stood—then waved his hand:
 Down sank the disappearing band;
 Each warrior vanished where he stood,
 In broom or bracken, heath or wood;
 Sunk brand and spear and bended bow,
 In osiers pale and copses low;—
 It seemed as if their mother Earth
 Had swallowed up her warlike birth!
 The wind's last breath had tossed in air
 Pennon, and plaid, and plumage fair,—
 The next but swept a lone hill-side,
 Where heath and fern were waving wide:
 The sun's last glance was glinted back
 From spear and glaive,⁶ from targe⁷ and jack,⁸—
 The next, all unreflected, shone
 On bracken green and cold gray stone.

Fitz-James looked round—yet scarce believed
 The witness that his sight received;
 Such apparition well might seem
 Delusion of a dreadful dream.
 Sir Roderick in suspense he eyed,
 And to his look the Chief replied:—
 "Fear nought—nay, that I need not say—
 But, doubt not aught from mine array
 Thou art my guest;—I pledged my word
 As far as Coilantogle ford:

Nor would I call a clansman's brand
 For aid against one 'valiant hand,
 Though on our strife lay every vale
 Rent by the Saxon from the Gael.
 So move we on ;—I only meant
 To show the reed on which you leant,
 Deeming this path you might pursue
 Without a pass from Roderick Dhu."

The Chief in silence strode before,
 And reached that torrent's sounding shore,
 Which, daughter of three mighty lakes,⁹
 From Vennachar in silver breaks.
 And here his course the Chieftain stayed,
 Threw down his target and his plaid,
 And to the Lowland warrior said :—
 "Bold Saxon ! to his promise just,
 Vich-Alpine has 'discharged his trust.
 This murderous Chief, this 'ruthless man,
 This head of a rebellious clan,
 Hath led thee safe, through watch and ward,
 Far past Clan-Alpine's outmost guard.
 Now, man to man, and steel to steel,
 A Chieftain's vengeance thou shalt feel.
 See here, all 'vantageless I stand,
 Armed, like thyself, with single brand :
 For this is Coilantogle ford,
 And thou must keep thee with thy sword."

The Saxon paused :—"I ne'er delayed,
 When foeman bade me draw my blade ;
 Nay more, brave Chief, I vowed thy death :
 Yet sure thy fair and generous faith,
 And my deep debt for life preserved,
 A better meed have well deserved :
 Can nought but blood our feud atone ?
 Are there no means ?"—"No, stranger, none !
 And hear,—to fire thy 'flagging zeal,—
 The Saxon cause rests on thy steel ;
 For thus spoke Fate, by prophet bred
 Between the living and the dead :
 'Who spills the foremost foeman's life,
 His party conquers in the strife.'"
 "Then, by my word," the Saxon said,
 "The riddle is already read.
 Seek yonder brake beneath the cliff,—
 There lies Red Murdoch, stark and stiff.
 Thus Fate has solved her prophecy ;
 Then yield to Fate, and not to me.

To James, at Stirling, let us go;
 When, if thou wilt be still his foe,
 Or if the King shall not agree
 To grant thee grace and favour free,
 I 'plight mine honour, oath, and word,
 That, to thy native strengths restored,
 With each advantage shalt thou stand
 That aids thee now to guard thy land."

Dark lightning flashed from Roderick's eye :
 "Soars thy 'presumption, then, so high,
 Because a wretched kern¹⁰ ye slew,
 Homage to name to Roderick Dhu?
 He yields not, he, to man nor Fate!
 Thou add'st but fuel to my hate :—
 My clansman's blood demands revenge.—
 Not yet prepared?—By Heaven, I change
 My thought, and hold thy valour light
 As that of some vain carpet-knight,
 Who ill deserved my 'courteous care,
 And whose best boast is but to wear
 A braid of his fair lady's hair."—
 "I thank thee, Roderick, for the word!
 It nerves my heart, it steels my sword;
 For I have sworn this braid¹¹ to stain
 In the best blood that warms thy vein.
 Now, truce, farewell! and ruth begone!—
 Yet think not that by thee alone,
 Proud Chief! can courtesy be shown:
 Though not from copse, or heath, or cairn,
 Start at my whistle clansmen stern,
 Of this small horn one feeble blast
 Would fearful odds against thee cast.
 But fear not, doubt not, which thou wilt—
 We try this quarrel hilt to hilt."—
 Then each at once his 'falcon drew,
 Each on the ground his 'scabbard threw,
 Each looked to sun, and stream, and plain,
 As what they ne'er might see again;
 Then foot, and point, and eye opposed,
 In 'dubious strife they darkly closed!

Ill fared it then with Roderick Dhu
 That on the field his targe he threw,
 Whose brazen studs and tough bull-hide
 Had death so often dashed aside;
 For, trained abroad his arms to wield,
 Fitz-James's blade was sword and shield.
 He practised every pass and ward,
 To thrust, to strike, to 'feint, to guard;

While, less expert, though stronger far,
 The Gael 'maintained unequal war.
 Three times in closing strife they stood,
 And thrice the Saxon blade drank blood;—
 No stinted draught, no scanty tide,
 The gushing flood the tartans dyed.
 Fierce Roderick felt the fatal drain,
 And showered his blows like wintry rain;
 And, as firm rock, or castle roof,
 Against the winter shower is proof,
 The foe, 'invulnerable still,
 Foiled his wild rage with steady skill;
 Till, at advantage ta'en, his brand
 Forced Roderick's weapon from his hand,
 And, backwards borne upon the lea,
 Brought the proud Chieftain to his knee.

"Now, yield thee, or by Him who made
 The world, thy heart's blood dyes my blade!"—
 "Thy threats, thy mercy, I defy!
 Let 'recreant yield, who fears to die."—
 Like adder darting from his coil,
 Like wolf that dashes through the toil,
 Like mountain-cat that guards her young,
 Full at Fitz-James's throat he sprung;
 Received, but recked not of a wound,
 And locked his arms his foeman round!—
 Now, gallant Saxon, hold thine own!
 No maiden's hand is round thee thrown!
 That desperate grasp thy frame might feel
 Through bars of brass and triple steel!—
 They tug, they strain!—down, down they go,
 The Gael above, Fitz-James below!
 The Chieftain's gripe his throat 'compressed,
 His knee was planted on his breast;
 His clotted locks he backward threw,
 Across his brow his hand he drew,
 From blood and mist to clear his sight,
 Then gleamed aloft his dagger bright!—
 But hate and fury ill supplied
 The stream of life's exhausted tide, '
 And all too late the advantage came,
 To turn the odds of deadly game;
 For, while the dagger gleamed on high,
 Reeled soul and sense, reeled brain and eye.
 Down came the blow! but in the heath
 The erring blade found bloodless sheath.
 The struggling foe may now unclasp
 The fainting Chief's 'relaxing grasp;—

Unwounded from the dreadful close,
But breathless all, Fitz-James arose.

He blew a bugle-note, which brought horsemen to his aid. To their care he intrusted the wounded Chieftain, while he rode off towards Stirling Castle. On the way, one of the knights saw a figure which he recognised as James of Douglas toiling in the guise of a woodman up the stony path, and hastened to inform the King.

It was high holiday in Stirling that day. The burghers held their sports, which were attended by the King and Court. Trials of strength and skill took place, in several of which the Douglas joined, and won the prize. He was applauded by the populace, but shunned by the nobles, and spurned by the King, who at last ordered the Captain of the Guard to take him into custody, and broke up the sports.

apparition, vî'sion.
appoint'ed, fixed.
bris'tling, bursting up.
compressed', squeezed.
cour'teous, civil.
dan'gerous, harm'ful.
daunt'less, fear'less.
disappear'ing, van'ishing.
discharged', performed.
du'bious, doubt'ful.
fal'chion, sword.
feint, pretend' to thrust.
flag'ging, wân'ing.

gar'risoned, peo'pled.
hard'hood, cour'age.
head'long, precip'itate.
hospital'ity, entertain-
ment.
intrust'ed, commit'ted.
invul'nerable, uncon'quer-
able.
lurk'ing, hid'ing
maintained', kept up.
plight, pledge
pop'ulace, cit'izens.
presump'tion, ar'rogance.

rec'reant, cow'ard.
relax'ing, loos'en'ing.
ruth'less, pit'iless.
scab'bard, sheath.
slum'bering, sleep'ing.
spurned, scorned.
suspense', uncer'tainty.
threat'ening, impend'ing.
unreflect'ed, unmir'rored.
val'iant, coura'geous
van'tageless, without odds.
vil'lain, ras'cal.
yawn'ing, o'pening.

¹ Show, declare, or exhibit yourself as.

² Vich-Alpine, the son of Alpine. (See Part ii., Note C.)

³ Curlew, a wading-bird of the snipe family, with long legs and a long bill. It frequents waters and marshes, and feeds on worms. Its scream or cry is well imitated in its name.

⁴ Copse, also *coppice*, a wood of small trees; so called because the trees are periodically cut down for the sake of their bark.

⁶ Brack'en, a coarse, bushy kind of fern, growing to the height of three or four feet, and covering wide areas, which form excellent shelter for game. In autumn, brackens are cut down and dried, and form comfortable bedding for cattle.

⁶ Glaive, a long sword or bill. [Fr. *glaive*, a sword; Lat. *gladius*. But *glaive* is probably taken from the Celtic word which gives us *clay* in *claymore*, a broadsword.]

⁷ Targe, shield; the Old English as well as the French form of *target*; probably allied to Latin *tergus*, hide, with which shields were often covered. The use of a shield as a mark in archery has led to the secondary meaning of the word,—a butt.

⁸ Jack, a coat of mail.

⁹ Three mighty lakes,—namely, Lochs Katrine, Achray, and Vennachar.

¹⁰ Kern, a boor; primarily, an Irish foot-soldier of the lowest rank.

¹¹ This braid,—the lock of Blanche of Devan's hair. (See Part ii.)

THE LADY OF THE LAKE.

THERE was great excitement in Stirling Castle on the morning of the next day. News arrived of a bloody fray between the troops of the Earl of Mar and the Highlanders near Loch Achray. Old Bertram of Ghent, a Flemish

soldier in the service of the Scottish King, arrived at the Castle, accompanied by Allan-bane and Ellen Douglas. The latter, after enduring many indignities from the rough soldiery, was taken to a room where she might rest securely under female care till the King could receive her.

Allan-bane induced the warder to admit him to his master's cell. Not until he was locked in did he discover that he was in the presence, not of Douglas, but of Roderick Dhu; for, as he came from Clan-Alpine's land, the warder concluded that the Chieftain was his master. To him the minstrel narrated the incidents of the battle down to the point at which a knight rushed between the combatants, waving a flag of truce, and announcing that both Douglas and Roderick were in captivity.

But here the lay made sudden stand !
 The harp escaped the minstrel's hand !—
 Oft had he stolen a glance, to spy
 How Roderick brooked his minstrelsy :
 At first, the Chieftain to the chime
 With lifted hand kept feeble time ;
 That motion ceased,—yet feeling strong
 Varied his look as changed the song ;
 At length, no more his deafened ear
 The minstrel melody can hear :
 His face grows sharp,—his hands are clenched,
 As if some pang his heart-strings wrenched ;
 Set are his teeth, his fading eye
 Is sternly fixed on vacancy ;—
 Thus, motionless, and moanless, drew
 His parting breath, stout Roderick Dhu !—

By-and-by Fitz-James appeared in Ellen's room, and conducted her to the Court, there to introduce her to the King, whom she wished to petition for her father's life. A portal arch, which threw open its wings at Fitz-James's touch, revealed to her the Court-room of the Castle.

Within 'twas brilliant all and light,
 A thronging scene of figures bright ;
 It glowed on Ellen's dazzled sight,
 As when the setting sun has given
 Ten thousand hues to summer even,
 And from their tissue fancy frames
 Aërial knights and fairy dames.
 Still by Fitz-James her footing stayed ;
 A few faint steps she forward made,
 Then slow her drooping head she raised,
 And fearful round the presence gazed ;
 For him she sought who owned this state,
 The dreaded Prince, whose will was fate !—
 She gazed on many a princely port,
 Might well have ruled a royal court ;

On many a splendid garb she gazed —
 Then turned 'bewildered and amazed ;
 For all stood bare, and in the room
 Fitz-James alone wore cap and plume.
 To him each lady's look was lent ;
 On him each courtier's eye was bent ;
 'Midst furs, and silks, and jewels sheen,²
 He stood, in simple Lincoln green,
 The centre of the glittering ring,—
 And Snowdown's³ Knight is Scotland's King !

As wreath of snow, on mountain breast,
 Slides from the rock that gave it rest,
 Poor Ellen glided from her stay,
 And at the Monarch's feet she lay ;
 No word her choking voice commands,—
 She showed the ring, she clasped her hands !
 O ! not a moment could he brook,
 The generous Prince, that 'suppliant look !
 Gently he raised her ; and, the while,
 Checked with a glance the circle's smile ;
 Graceful, but grave, her brow he kissed,
 And bade her terrors be 'dismissed :—
 'Yes, Fair ; the wandering poor Fitz-James
 The fealty of Scotland claims.
 To him thy woes, thy wishes, bring ;
 He will redeem his signet-ring.
 Ask nought for Douglas ;—yester even
 His Prince and he have much forgiven :
 Wrong hath he had from 'slandrous tongue—
 I, from his rebel kinsmen,⁴ wrong.
 We would not to the vulgar crowd
 Yield what they craved with clamour loud ;
 Calmly we heard and judged his cause—
 Our Council aided, and our laws ;
 And Bothwell's Lord Menceforth we own
 The friend and 'bulwark of our Throne.—
 But, lovely infidel ! how now ?
 What clouds thy 'misbelieving brow ?
 Lord James of Douglas, lend thine aid ;
 Thou must confirm this doubting maid."

Then forth the noble Douglas sprung,
 And on his neck his daughter hung.
 The Monarch drank, that happy hour,
 The sweetest, holiest draught of Power,—
 When it can say, with godlike voice,
 Arise, sad Virtue, and rejoice !
 Yet would not James the general eye
 On nature's 'raptures long should pry ;

- ' He stepped between—"Nay, Douglas, nay,
 Steal not my 'proselyte away!
 The riddle 'tis my right to read,
 That brought this happy chance to speed.—
 Yes, Ellen, when disguised I stray⁵
 In life's more low but happier way,
 'Tis under name which veils my power;
 Nor falsely veils—for Stirling's tower
 Of yore the name of Snowdown claims,
 And Normans call me James Fitz-James.⁶
 Thus watch I o'er insulted laws,
 Thus learn to right the injured cause."—
 Then, in a tone apart and low:—
 "Ah, little traitress! none must know
 What idle dream, what lighter thought,
 What vanity full dearly bought,
 Joined to thine eye's dark 'witchcraft, drew
 My spell-bound steps to Ben-venue,
 In dangerous hour, and all but gave
 Thy Monarch's life to mountain glaive!"
 Aloud he spoke:—"Thou still dost hold
 That little 'talisman of gold,
 Pledge of my faith, Fitz-James's ring—
 What seeks fair Ellen of the King?"
 Full well the conscious maiden guessed
 He probed the weakness of her breast;
 But, with that 'consciousness, there came
 A lightening of her fears for Græme,
 And more she deemed the Monarch's ire
 Kindled 'gainst him who, for her sire,
 'Rebellious broad-sword boldly drew;
 And, to her generous feeling true,
 She crav'd the grace⁷ of Roderick Dhu.—
 "Forbear thy suit;—the King of kings
 Alone can stay life's parting wings.
 I know his heart, I know his hand,
 Have shared his cheer, and proved his brand;—
 My fairest earldom would I give
 To bid Clau-Alpine's Chieftain live!—
 Hast thou no other boon to crave,
 No other 'captive friend to save?"—
 Blushing, she turned her from the King,
 And to the Douglas gave the ring,
 As if she wished her sire to speak
 The suit that stained her glowing cheek.—
 "Nay, then, my pledge has lost its force,
 And 'stubborn Justice holds her course!
 Malcolm, come forth!"—And, at the word,
 Down kneeled the Græme to Scotland's Lord.—

"For thee, rash youth, no suppliant sues;
 From thee may Vengeance claim her dues,
 Who, nurtured underneath our smile,
 Hast paid our care by 'treacherous wife,
 And sought, amid thy faithful clan,
 A refuge for an outlawed man,
 Dishonouring thus thy loyal name—
 Fetters and warder for the Græme!"
 His chain of gold the King unstrung,
 The links o'er Malcolm's neck he flung;
 Then gently drew the glittering band,
 And laid the clasp on Ellen's hand!

SIR WALTER SCOTT. (b)

announc'ing, proclaim'ing.	indig'nities, in'sults.	slan'derous, calum'nious.
bewil'dered, confused'.	induced', prevailed' upon.	stub'born, inflexible.
bul'wark, protect'or.	min'strelsy, recita'tion.	sup'pliant, beseech'ing.
cap'tive, impris'oned.	misbeliev'ing, doubt'ful.	tal'isman, charm.
con'sciousness, knowl'edge.	nur'tured, nour'ished.	throng'ing, crowd'ing.
dishon'ouring, disgrac'ing.	pros'elyte, con'vert.	treach'erous, faith'less.
dismissed', driv'en away.	rap'tures, trans'ports.	va'cancy, emp'tiness.
in'cidents, occur'rences.	rebell'ious, sed'itious.	witch'craft, sor'cery.

¹ Might well.—Supply *which* before these words. Port, in the previous line, means bearing, presence.

² Sheen, bright, sparkling. The word comes from *shine*.

³ Snowdoun, an old name for Stirling Castle, probably derived from the romantic legend which connected Stirling with King Arthur. The ring within which jousting used to be practised in the Castle Park of Stirling is still called the Round Table.

⁴ His rebel kinsmen.—Lord James Douglas of Bothwell is represented as uncle of the Earl of Angus, and of his brother George Douglas, who had kept King James a prisoner at Falkland Palace for two years, during which they governed the country in his name. When the King escaped, and assumed the reins of government, the Douglasses were banished. The James Douglas of the poem is a purely fictitious personage; but the Earl of Angus had an uncle (Archibald Douglas of Kilspindie) who was to some extent the model of Scott's character.

⁵ When disguised I stray.—King James V. was fond of roaming in disguise amongst his peasantry, partly to gratify his love of adventure, partly to learn the actual condition of his people. His easy manners gained for him the title of "The King of the Commons." His favourite name, however, was the "Gudeman (or farmer) of Ballangeich,"—from a steep pass so called leading up to the Castle of Stirling.

⁶ Fitz-James, son of James. *Fitz* was the prefix used by the Normans to express family or descent, as *Mac* is used by the Scottish and *O'* by the Irish Celts, and the suffix *-son* by the Scandinavians, whence the English *-son* in Johnson, Wilson. *Fitz* is said to be the same word as the French *fils*, a son, which comes from Latin *filius*. These family names are called *patronymics*, a word of Greek origin meaning *father-names*.

⁷ Grace, pardon; *lit.* favour, esteem; and usually attributed to him who grants it, not, as here, to him who receives it.

RHETORICAL PASSAGES.

PART I.

THE following pieces have been selected as examples of modern parliamentary, pulpit, and platform eloquence. It is recommended that these passages should be used alternately with the poetical extracts in the volume, as pieces for rhetorical reading and recitation.

‘PANEGRIC ON MARIE ANTOINETTE.

IT is now sixteen or seventeen years since I saw the Queen of France—then the Dauphiness¹—at Versailles;² and surely never lighted on this orb, which she hardly seemed to touch, a more delightful vision. I saw her just above the ‘horizon, ‘decorating and cheering the elevated sphere she had just begun to move in—glittering like the morning star, full of life, and ‘splendour and joy.

Oh, what a ‘revolution! and what a heart must I have, to ‘contemplate without emotion that elevation, and that fall! Little did I dream, when she added ‘titles of ‘veneration to those of ‘enthusiastic, distant, respectful love, that she should ever be obliged to carry the sharp ‘antidote against disgrace concealed in that bosom; little did I dream that I should live to see such ‘disasters fallen upon her in a nation of gallant men, in a nation of men of honour and of ‘cavaliers. I thought ten thousand swords must have leaped from their ‘scabbards to avenge even a look that threatened her with insult.

But the age of chivalry is gone. That of ‘sophisters, economists, and calculators has succeeded; and the glory of Europe is ‘extinguished for ever. Never, never more shall we behold that generous ‘loyalty to rank and sex—that proud submission, that dignified obedience, that ‘subordination of the heart—which kept alive, even in ‘servitude itself, the spirit of an exalted freedom. The unbought grace of life, the cheap defence of nations, the nurse of manly sentiment and heroic ‘enterprise is gone! It is gone,—that ‘sensibility of principle, that ‘chastity of honour, which felt a stain like a wound; which inspired courage whilst it ‘mitigated ‘ferocity; which ennobled whatever it touched;

and under which vice itself lost half its evil, by losing all its grossness.

EDMUND BURKE.³

an'tidote, correct'ive.
cavaliers', high-minded
chas'tity, pu'rity. [knights.
contem'plate, regard'.
dec'orating, adorn'ing.
disas'ters, calam'ities.
en'terprise, dā'ring.
enthusias'tic, impet'uous.

extin'guished, put out.
feroc'ity, fierceness.
hori'zon, where earth and
sky meet.
loy'alty, alle'giance.
mit'igated, alle'viated.
panegy'ric, eu'logy.
revolu'tion, overturn'ing.

scab'bards, sheaths.
sensibil'ity, conscien'tious-
ser'vitude, bond'age. [ness.
soph'isters, quib'blers/
splen'dour, magnificence.
subordina'tion, subjec'tion.
titles, claims.
venera'tion, reverence.

¹ The Dauphiness, the wife of the Dauphin; the title borne by the heir-apparent to the French crown prior to 1830. Marie Antoinette (*Mā-re An'-twoi-net*), the Dauphiness here referred to, was a daughter of Maria Theresa of Germany. Her marriage with the Dauphin (in 1770) was the result of a compact between France and Germany against England. In 1774 she ascended the French throne, with her husband, Louis XVI. When the Revolution broke out in 1789, she was a special object of popular fury; which explains Burke's allusions to the disasters and insults that befell her. But she bore her trials with singular fortitude and dignity. She endured the hardships of imprisonment for four years, and was guillotined at Paris in

October 1793, ten months after her husband had met the same fate.

² Versailles, a town near Paris, famous for its magnificent palace, built chiefly by Louis XIV. between 1661 and 1687. Marie Antoinette and her husband were seized there by the mob on 6th October 1789, and were led in triumph to Paris.

³ Edmund Burke, a great writer, orator, and statesman. He was born at Dublin in 1730, and died in 1797. He was one of the accusers of Warren Hastings, who was tried for acts of oppression and injustice while Governor-General of India. His chief works are *Reflections on the Revolution in France*, and an *Essay on the Sublime and Beautiful*.

CRUELTY TO ANIMALS.

MAN is the direct agent of a wide and continual distress to the lower animals; and the question is, "Can any method be devised for its 'alleviation?'" On this subject that scriptural image is strikingly realized: "the whole [inferior] creation groaning and 'travailing together in pain' because of him. It signifies naught to the 'substantive amount of the suffering, whether it be 'prompted by the hardness of his heart, or only permitted through the 'heedlessness of his mind. In either way it holds true, not only that the arch-devourer Man¹ stands 'preëminent over the fiercest children of the wilderness as an animal of prey, but that for his lordly and 'luxurious appetite, as well as for his service or merest curiosity and amusement, Nature must be 'ransacked throughout all her elements. Rather than forego the veriest 'gratifications of vanity, he will wring them from the anguish of wretched and ill-fated creatures; and whether for the indulgence of his barbaric sensuality or his barbaric splen-

dour, he can stalk 'paramount over the sufferings of that 'prostrate creation which has been placed beneath his feet.

These sufferings are really felt. The beasts of the field are not so many automata² without sensation, so 'constructed as to assume all the natural expressions of it. Nature hath not practised this universal 'deception upon our species. These poor animals just look, and tremble, and give forth the very indications of suffering that we do. Theirs is the distinct cry of pain. Theirs is the 'unequivocal 'physiognomy of pain. They put on the same aspect of terror on the demonstrations of a menaced blow. They exhibit the same 'distortions of agony after the infliction of it. The bruise, or the burn, or the fracture, or the deep incision, or the fierce encounter with one of equal or of superior strength, affects them similarly to ourselves. Their blood circulates as ours. They have 'pulsations in various parts of the body as we have. They sicken, and they grow feeble with age, and, finally, they die, just as we do.

They possess the same feelings; and, what exposes them to like sufferings from another quarter, they possess the same 'instincts with our own species. The lioness robbed of her whelps causes the wilderness to ring aloud with the 'proclamation of her wrongs; or the bird whose little household has been stolen fills and saddens all the grove with melodies of deepest pathos. All this is palpable even to the general and unlearned eye; and when the physiologist³ lays open the recesses of their system, by means of that 'scalpel under whose operation they just shrink and are 'convulsed as any living subject of our own species, there stands forth to view the same sentient apparatus,⁴ and furnished with the same conductors for the transmission of feeling from every minutest pore upon the surface.

Theirs is unmixed and 'unmitigated pain, the agonies of martyrdom without the alleviation of the hopes and the sentiments whereof men are capable. When they lay them down to die, their only fellowship is with suffering; for in the prison-house of their beset and bounded faculties, no relief can be afforded by 'communion with other interests or other things. The attention does not lighten their distress, as it does that of man, by carrying off his spirit from that existing 'pungency and pressure which might else be overwhelming. There is but room in their 'mysterious economy for one inmate; and that is, the absorbing sense of their own single and 'concentrated anguish. And so on that bed of torment whereon the wounded

animal lingers and expires, there is an unexplored depth and intensity of suffering which the poor dumb animal itself cannot tell, and against which it can offer no 'remonstrance—an untold and unknown amount of 'wretchedness of which no 'articulate voice gives utterance.

THOMAS CHALMERS.*

allevia'tion, mitiga'tion.
artic'ulate, distinct'.
commu'nion, in'tercourse.
concen'trated, self-con-
tained'.
construct'ed, put together.
convulsed', affected spas-
modically.
decep'tion, fraud.
distor'tions, writh'ings.
gratifica'tion, indul'gence.
heed'lessness, care'less-

in'stinct, natural im'pulse.
luxu'rious, sen'sual.
myste'rious, incomprehen-
sible.
par'amount, chief.
physiog'nomy, expres'sion
of face.
preem'inent, supreme'.
proclama'tion, publica'-
tion.
prompt'ed, suggest'ed.
pros'trate, down'-trodden.
puls'a'tions, throb'bings.

pun'gency, sharpness.
ransacked', pil'lated.
remon'strance, expostula'-
tion.
scal'pel, dissect'ing knife.
sub'stantive, ac'tual.
trav'elling, la'bouring
with pain.
unequiv'ocal, unmis'tak-
able.
unmit'igated, undimin'-
ished.
wretch'edness, mis'ery.

¹ Arch-devourer Man. He feeds on animals, vegetables, and minerals.

² Autom'ata, lifeless machines, moved by concealed works, so as to imitate the actions of living creatures. The singular is *autom'aton*.

³ Physiologist, one who studies and expounds *physiology*,—the science which treats of the nature and organization of living bodies.

⁴ Sentient appa'rus, apparatus of the feelings; that is, the nerve system.

⁵ Thomas Chalmers.—An eloquent preacher and distinguished philanthropist of the present century. He was also a devoted student of mathematics and natural science. His writings present a remarkable combination of religious fervour with scientific enthusiasm; for example, his *Astronomical Discourses*, and his *Bridge-water Treatise On the Adaptation of Eternal Nature to the Moral and Intellectual Constitution of Man*. Born 1780; died 1847.

THE DELUGE.

Look for a moment on the 'catastrophe of the Deluge.¹ And let not our attention be so 'engrossed by its dread and awful character, as to overlook all that 'preceded it, and see nothing but the flood and its devouring waters.

The waters rise till rivers swell into lakes, and lakes become seas, and the sea stretches out her arms along fertile plains to seize their flying population. Still the waters rise; and now, mingled with beasts that terror has tamed, men climb to the mountain-tops, with the flood roaring at their heels. Still the waters rise; and now each 'summit stands above them like a separate and sea-girt isle.

Still the waters rise; and, crowding closer on the narrow spaces of 'lessening hill-tops, men and beasts fight for standing-room. Still the thunders roar, and the lightnings flash, and the

rains descend, and the waters rise, till the last 'survivor of the 'shrieking crowd is washed off, and the head of the highest Alp goes down beneath the wave.

Now the waters rise no more. God's servant has done his work. He rests from his labours; and, all land drowned, all life 'destroyed, an awful silence reigning and a shoreless ocean rolling, Death for once has nothing to do but ride in triumph on the top of some giant billow, which, meeting no coast, no continent, no Alp, no Andes against which to break, sweeps round and round the world.

We stand aghast at the scene; and as the 'corpses of gentle children and sweet infants float by, we 'exclaim, Hath God forgotten to be gracious? Hath he in anger shut up his tender mercies?² No; 'assuredly not. Where, then, is his mercy?

Look here; behold this Ark, as, steered by an 'invisible hand, she comes dimly through the gloom. Lonely ship on a shoreless ocean, she carries mercy on board. She holds the 'costliest 'freight that ever sailed the sea. The germs of the Church are there—the children of the old world, and the fathers of the new.

Suddenly, amid the awful gloom, as she drifts over that dead and silent sea, a grating noise is heard. Her keel has grounded on the top of Ararat.³ The door is opened; and, beneath the sign of the olive branch, her 'tenants come forth from their 'baptismal burial, like life from the dead, or like souls which have passed from a state of nature into the light and the liberty of grace, or like the saints when they shall rise at the summons of the trumpet to behold a new heaven and a new earth, and see the sign which these "gray fathers"⁴ hailed 'encircling a head that was crowned with thorns.

THOMAS GUTHRIE.⁵

assur'edly, certainly.
baptis'mal, consecrating.
catas trophe, calam'ity.
corps'es, dead bodies.
cost'liest, richest.
destroyed', annihilated.

encir'cling, surround'ing.
engrossed', absorbed'.
exclaim', cry out.
freight, cargo.
invisible, unseen.
less'en'ing, dimin'ishing.

precēd'ed, went before.
shriek'ing, screaming
sum'mit, peak.
surviv'or, one who outlives
others.
ten'ants, occupants.

¹ The Deluge.—See *Gen.* vi. vii. viii.

² Hath God forgotten to be gracious, &c.—See *Ps.* lxxvii. 9.

³ Ararat.—A province in Armenia, on the mountains of which the ark rested (*Gen.* viii. 4.) The summit of Mount Ararat is upwards of 17,000 feet above the level of the sea. In 1829, Professor Parrot, a German, reached the summit after several unsuccessful attempts.

⁴ "Gray fathers."—From Campbell's poem on *The Rainbow*:—

"When o'er the green undeluged earth
Heaven's covenant thou didst shine,
How came the world's gray fathers forth
To watch thy sacred sign!"

(See *ROYAL READER* No. V.)

⁵ Thomas Guthrie.—An eloquent preacher and a well-known philanthropist. Born 1803; died 1873.

WHAT IS WAR?

WHAT is war? I believe that half the people that talk about war have not the slightest idea what it is. In a short sentence it may be summed up to be the combination and concentration of all the horrors, atrocities, crimes, and sufferings of which human nature on this globe is capable. But what is even a rumour of war? Is there anybody here who has anything in the funds,¹ or who is the owner of any railway stock; or anybody who has a large stock of raw material or of manufactured goods? The funds have recently gone down 10 per cent. I do not say that the fall is all on account of this danger of war, but a great proportion of it undoubtedly is. A fall of 10 per cent. in the funds is nearly £80,000,000 sterling of value; and railway stock having gone down 20 per cent. makes a difference of £60,000,000 in the value of the railway property of this country. Add the two—£140,000,000—and take the diminished prosperity and value of manufactures of all kinds during the last few months, and you will under-state the actual loss to the country now if you put it down at £200,000,000 sterling. But that is merely a rumour of war. That is war a long way off—the small cloud no bigger than a man's hand: what will it be if it comes nearer and becomes a fact? And surely sane men ought to consider whether the case is a good one, the ground fair, the necessity clear, before they drag a nation of nearly thirty millions of people into a long and bloody struggle, for a decrepit and tottering empire,² which all the nations in Europe cannot long sustain.

Well, if you go into war now, you will have more banners to decorate your cathedrals and churches. Englishmen will fight now as well as they ever did; and there is ample power to back them, if the country can be but sufficiently excited and deluded. You may raise up great generals. You may have another Wellington, and another Nelson too; for this country can grow men capable of every enterprise. Then there may be titles, and pensions, and marble monuments to eternize the men who have thus become great;—but what becomes of you and your country, and your children?

Speaking here, however, to such an audience—an audience probably, for its numbers, as intelligent and as influential as ever was assembled within the walls of any hall in this kingdom—I think I may put before you higher considerations even than those of property and the institutions of your country. I may remind you of duties more solemn, and of obligations more imperative.

You profess to be a Christian nation. You make it your boast even—though boasting is somewhat out of place in such questions—you make it your boast that you are a Christian people, and that you draw your rule of doctrine and practice, as from a well pure and undefiled, from the lively oracles of God, and from the direct revelation of the Omnipotent. You have even conceived the magnificent project of illuminating the whole Earth, even to its remotest and darkest recesses, by the dissemination of the volume of the New Testament, in whose every page are written for ever the words of peace. Within the limits of this island alone, every Sabbath-day, 20,000, yes, far more than 20,000 temples are thrown open, in which devout men and women assemble to worship him who is the "Prince of Peace."

Is this a reality? or is your Christianity a romance, and your profession a dream? No; I am sure that your Christianity is not a romance, and I am equally sure that your profession is not a dream. It is because I believe this that I appeal to you with confidence, and that I have hope and faith in the future. I believe that we shall see, and at no very distant time, sound economic principles spreading much more widely amongst the people; a sense of justice growing up in a soil which hitherto has been deemed unfruitful; and—which will be better than all—the churches of the United Kingdom, the churches of Britain, awaking as it were from their slumbers, and girding up their loins to more glorious work, when they shall not only accept and believe in the prophecy, but labour earnestly for its fulfilment, that there shall come a time—a blessed time—a time which shall last for ever—when "nation shall not lift up³ sword against nation, neither shall they learn war any more."

JOHN BRIGHT.⁴

atrocities, cruelties.
combination, union.
concentration, essence.
considerations, motives.
decayed, broken-down.
deceived, deceived.

diminished, lessened.
dissemination, distribution.
eternize, immortalize.
illuminating, enlightening.
imperative, binding. (Ing.)

obligations, duties.
revelation, communication.
romance, fiction. [tion.
sufficiently, enough.
under-state, under-rate.
undoubtedly, certainly.

¹ The funds.—A Government in want of money frequently issues bonds, which are sold to the public, and yield a certain rate of interest. A Government in good credit, like the British Government, can borrow money cheaply (at 3 or 3½ per cent.), while others have to pay much more. Government bonds are usually called *The Funds*; and when it is said "The funds have recently gone down 10 per cent.," the meaning is that the price of

£100 stock has gone down to £90. The reason why a rumour of war makes the funds fall is, that war increases the national debt, compelling the Government to issue more bonds at any price they will bring.

² A decrepit and tottering empire.—The Turkish Empire, which in 1854 England and France assisted to repel Russian aggression.

³ "Nation shall not lift up," &c.—See *Isaiah*, ii. 4; *Micah*, iv. 3

* **John Bright.**—A manufacturer of Rochdale (Lancashire), and one of the most powerful speakers in the British Parliament. He was the chief associate of Mr. Cobden in the agitation which led to the repeal of the Corn Laws in 1846. He has always been an ardent advocate of a peace policy, and he opposed the Russian War of 1854-56. The above speech was delivered at a conference of the Peace Society in Edinburgh. Mr. Bright was born in 1811.

COLONIAL LOYALTY.

OUR 'attachment to the Queen, our own Victoria, is mingled with a tenderness not 'inconsistent with the sterner sentiment, which it softens and 'embellishes without enervating. Let her legitimate authority as a constitutional monarch, let her reputation as a woman, be assailed, and notwithstanding the 'lamentation of Burke¹ that the age of chivalry was past, thousands of swords would leap from their scabbards to avenge her. Ay, and they would be drawn as freely and wielded as 'vigorously and bravely in Canada or in Nova Scotia, as in England. Loyalty! love of British institutions!—they are 'ingrafted on our very nature; they are part and parcel of ourselves; and I can no more tear them from my heart (even if I would, and 'lacerate all its fibres) than I could sever a limb from my body.

And what are those institutions? A 'distinguished American statesman 'recently answered this question. He said: "The proudest Government that exists upon the face of the Earth is that of Great Britain. And the great Pitt,² her proudest statesman, when he would tell of Britain's crowning glory, did not speak, as he might have done, of her wide-spread 'dominion, upon which the sun never sets. He did not speak of martial 'achievements, of glorious battle-fields, and of splendid naval conflicts. But he said, with swelling breast and kindling eye, that the poorest man of Great Britain in his cottage might bid defiance to all the force of the Crown. It might be frail, its roof might shake, the wind might blow through it, the storm might enter, the rain might enter; but the King of England could not enter it. In all his forces he dared not cross the threshold of that ruined 'tenement."

HON. W. YOUNG.

achieve'ments, exploits'.
attach'ment, affection (for).
distinguish'd, illustrious.
dominion, empire.

embel'lishes, adorns'.
inconsistent, irreconcil'-
ingraft'ed, rooted. [able.
lacerate, mangle.

lamentat'ion, complaint'.
re'cently, lately.
tenement, habitation.
vig'orously, powerfully.

¹ Lamentation of Burke.—See *Panegyric on Marie Antoinette*, p. 108.

² The great Pitt.—William Pitt, Earl of Chatham.

WORD LESSONS.—GREEK PREFIXES.

A or an signifies without, not.

Examples.	Literal Meanings.	Secondary Meanings
Abyss	without bottom.....	<i>hence</i> a fathomless deep.
Atheist	without God.....	an infidel.
Anarchy	without government	confusion, disorder.
Anonymous	without name or signature	nameless.

Amphi signifies both, two.

Amphibious	able to live in two elements.....	<i>hence</i> partaking of two natures.
Amphitheatre	a theatre on both sides.....	a sloping upward all round

Ana or an signifies up, back, again, through.

Anchorite	one who goes back (from society).....	<i>hence</i> a hermit, a recluse.
Analysis	a loosening up	separation.

Ant or anti signifies against or opposite.

Antarctic	opposite the arctic or north.....	<i>hence</i> south.
Antidote	something given against	a counteractive.

Apo signifies away, from.

Apostasy	a standing away from	<i>hence</i> departure from religion.
Apostrophe	a turning from the subject.....	an address to the absent.

Cata, cat, or cath, signifies under, down, throughout.

Catacombs	hollow under-ground places.....	<i>hence</i> caves for burying the dead
Catechise	to speak down to others.....	to teach by questioning.
Catholic	throughout the whole.....	universal.

Dia signifies through or round.

Diadem	something bound round	<i>hence</i> a crown.
Diameter	the measure through the centre.	

En or em signifies in or on.

Encomium	praise on another.....	<i>hence</i> panegyric, eulogy.
Emblem	something thrown into another.....	a device.

Epi signifies upon, after.

Epidemic	upon the people	<i>hence</i> general, universal.
Ephemeral	lasting for a day.....	short, brief

Ex or ec signifies out or out of.

Eclipse	a leaving out.....	<i>hence</i> failure, interception of light.
Exodus	a going out.....	departure; 2d book of Bible.

Hyper signifies above, over, beyond.

Hypercritical	judging over-exactly	<i>hence</i> captious.
Hyperbole	a throwing beyond	the figure of exaggeration.

Hypo signifies under.

Hypocrite	{ one who keeps his real character un- der	<i>hence</i> } a dissembler.
Hypothesis	a placing under.....	a supposition.

Meta or *met* signifies *beyond, after, change*.

Metamorphosis.. a change of form .. *hence* transformation.

Meteor..... beyond the air..... { an appearance in the at-
mosphere.

Para signifies *side by side, near to, aside from*.

Parable a throwing side by side *hence* a comparison, a similitude.

Parallel another side by side with similarity, comparison.

Peri signifies *round, about*.

Period the way round *hence* revolution, stated time, end.

Periphrasis a roundabout saying a circumlocution.

Syn, with its forms *sy*, *syl*, and *sym*, signifies *together, with*.

Syntax a putting together *hence* construction of sentences.

System a standing together a methodical arrangement.

Syllable a taking together with the lips a distinct utterance.

Sympathy a feeling together compassion.

WORD LESSONS—SUFFIXES.

A SUFFIX is a syllable placed after a root-word to form a derivative. Suffixes were at one time distinct words with a separate signification. Some (as *able, like, less, some*) still are significant words. But most of them have lost their separate meaning, and simply modify the meaning of the words to which they are attached.

age [L.], act, as *pass-age*; state, as *vassal-age*.

al, ar [L.], relating to, as *parent-al*, *popul-ar*. Other form,—*ile*, as *host-ile*.

an [L.], relating to, as *republic-an*. Other forms,—

ane as *hum-ane*.

ean *Europ-ean*.

ene *Nazar-ene*.

ine *sal-ine*.

ar [E.], doer, as *li-ar*. Other forms,—

ard .. } frequent- { *drunk-ard*.

art .. } tives, as { *bragg-art*.

heart } *sweet-heart*.

er *speak-er*.

eer [F.] *musket-eer*.

ier [F.] *grenad-ier*.

or [L.] *auth-or*.

ster (feminine) *maid-ster*.

yer *law-yer*.

ary [L.], relating to, as *milit-ary*; one who, as *antiqu-ary*.

ant [L.], doing, as *err-ant*, *pleas-ant*; one who, as *combat-ant*. Other forms,—

ent *flu-ent*.

ing *will-ing*.

ac [Gr. and L.], pertaining to, as *demoni-ac*.

Other forms,—

ic as *polit-ic*.

ics *polit-ics*.

ish [E.], like *boy-ish*.

y, ey [E.], full of ... *bush-y*, *clay-ey*.

ique [F.] *ant-ique*.

esque [F.] *pictur-esque*.

ate [L.], to make, as *anim-ate*; made, or full of, as *fortun-ate*; one who, as *cur-ate*; office, as *protector-ate*.

ble [L.], fit to be, as *audi-ble*. Other forms,—

able as *eat-able*.

ible *poss-ible*.

ile *doc-ile*.

ce, cy [L.], state, as *gra-ce*, *mer-cy*. Other forms,—

ace as *popul-ace*.

acy *accur-acy*.

ance *abund-ance*.

ancy *pli-ancy*.

ence *abs-ence*.

ency *pot-ency*.

ice *serv-ice*.

dom [E.], power, as *king-dom*.

- el** [E.], little, as *satch-el*. Other forms,—
icle *ic-icle*.
cule *reti-cule*.
ule *glob-ule*.
erel *mack-erel*.
le *sick-le*.
le, to do by littles, (often), as *spark-le*.
- en** [E.], made of, as *wood-en*. (Same as *ne* in *mine*, *thine*.)
- en** [E.], to make, as *less-en*.
- en** [E.], little, as *maid-en*, *kitt-en*. Other forms,—
n [Sc.] as *bair-n*.
ing *farth-ing*.
kin (*ock + en*) *lamb-kin*.
ling (*el + ing*) *duck-ling*.
- er** [E.], little, as *whisp-er*, *splint-er*; to do by littles, or often, as *glimm-er*.
- ern** [E.], direction, as *south-ern*.
- es** [E.], of, from, at, as *sometim-es*. Other forms,—
s as *need-s*.
se *el-se*.
ce *on-ce*, *hen-ce*.
- et** [Gr. and L.], one who, as *proph-et*. Other forms,—
ete as *athl-ete*.
ite *favour-ite*.
ist *chem-ist*.
- et** [E.], little, as *pock-et*. Other forms,—
let (*el + et*) as *stream-let*.
ette [F.] *coqu-ette*.
ot *ball-ot*.
- ee** [L.], one to whom, as *legat-ee*.
- ful** [E.], full of, as *truth-ful*.
- fold** [E.], multiple, as *two-fold*.
- fic** [L.], causing, as *terri-fic*.
- fy** [L.], to make, as *terri-fy*.
- head** [E.], state, as *God-head*. Other form,—
hood, as *man-hood*; place, as *neighbour-hood*; fraternity, as *priest-hood*.
- id** [L.], pertaining to, as *serv-id*.
- ing** [E.], action, as *writ-ing*.
- ion** [L.], state, as *relig-ion*, *pens-ion*, *fash-ion*, *miss-ion*, *nat-ion*, *complex-ion*.
- ise** [L.], to make, as *chast-ise*. Other form,—
ize, as *fertil-ize*.
- ive** [L.], able to, as *act-ive*. Other form,—
iff, one who, as *plaint-iff*.
- less** [E.], without, as *profit-less*.
- like** [E.], like, as *God-like*. Other form,—
ly, as *man-ly*.
- men** [L.], state, as *regi-men*. Other forms,—
ment, that which, as *orna-ment*; act, as *conceal-ment*; state, as *astonish-ment*.
mony, that which, as *patri-mony*; state, as *matri-mony*.
- ness** [E.], state, as *wretched-ness*; act, as *kind-ness*.
- ock** [E.], little, as *hill-ock*. Other forms,—
ish, inclining to... as *black-ish*.
ie [Sc.] *lass-ie*.
ow *minn-ow*.
isk [Gr.] *aster-isk*.
ch *blot-ch*.
- our** [E. and L.], state, as *hin-our*.
- ous** [L.], full of, as *danger-ous*. Other forms,—
eous as *'erron-eous*.
ious *ambit-ious*.
ose *A..mor-ose*.
- ric** [E.], jurisdiction, as *bishop-ric*.
- ry** [E.], place, as *heron-ry*; collection, as *caval-ry*. Other forms,—
ery as *brew-ery*.
ary [L.] *gran-ary*.
ory *purgat-ory*.
erie [F.] *menag-erie*.
y *smith-y*.
- ship** [E.], state, quality, as *friend-ship*; office, as *steward-ship*. Other form,—
scape, as *land-scape*.
- sm** [Gr.], state, as *cha-sm*. Other forms,—
asm as *pleon-asm*.
ism, as *patriot-ism*; body of doctrines, as *Calvin-ism*.
- some** [E.], full of, as *glad-some*, *win-some*.
- teen** [E.], plus ten, as *six-teen*.
- tude** [L.], state, as *forti-tude*.
- ty** [L.], state, quality, as *hones-ty*. Other forms,—
sy [Gr.] as *poe-sy*.
sis [Gr.] *cri-sis*.
ity [Gr.] *abil-ity*.
- ty** [E.], ten times, as *six-ty*.
- ure** [L.], state, as *verd-ure*. Other form,—
eur, as *grand-eur*.
- ward**, **wards** [E.], towards, as *home-ward*, *home-wards*.
- wise** [E.], manner, as *other-wise*. Other forms,—
ways as *side-ways*.
eous *right-come*.

EXERCISES.*Words to be Analyzed.**

abundant	dastard	pecuniary	admissible	captivate	human
charloteer	incendiary	American	presence	woody	febrile
genuine	mundane	bondage	fragile	fluency	marriage
carriage	maternal	different	flexible	honourable	diligence
sailor	beggar	final	foolish	economics	vigilant
desolate	globular	arabesque	cavalier	spinster	British.
2.					
locket	boyhood	sputter	druggist	beautify	vision
boastful	worthless	committee	shilling	horrific	dukedom
amazement	equalize	woollen	manifold	relation	acumen
passion	brighten	quicken	horrid	fugitive	Calvinist
heavenly	rivulet	hinder	speaking	knighthood	gosling
western	besides	twinkle	parsimony	testimony	manikin
poet	authorize	particle	trustee	humid	palette.
clerkship					
bullock	beauteous	solitude	gentleness	servitude	greenish
seventy	holiness	captivity	favour	tenure	jocose
courteous	archbishopric	nature	timorous	wholesome	altitude
gratitude	relationship	outwards	puritanism	brevity	mastership
deafness	spasm	fourteen	machinery	capture	toilsome
valour	peasantry	verbose	despotism	shadow	poverty
	frolicsome	likewise	infantry	frugality	treasury.

Roots to which Suffixes may be added.†

1.					
north-	command-	wld-	dispens-	despot-	cross-
thank-	beauti-	magg-	leaf-	faith-	wind-
terri-	admiss-	three-	animal-	sens-	art-
flax-	trick-	thir-	semin-	benefi-	fever-
pill-	fellow-	priest-	found-	care-	fin-
patern-	dast-	arm-	critic-	termin-	giant-
sing-	chick-	patent-	pleas-	forti-	instruct-
2.					
length-	fav-	govern-	grati-	magni-	ocul-
pleni-	in-	nurs-	home-	out-	experl-
brace-	famili-	clerk-	lab-	braz-	earl-
rook-	stud-	plum-	orat-	dar-	feeble-
gos-	graz-	capt-	widow-	friend-	defens-
use-	botan-	enjoy-	gentle-	brother-	termin-
mountain-	bound-	fract-	dent-	honest-	like-

* *Example.*—**Astonishment**: root, *astonish*; suffix, *ment*, meaning state. **Astonish** = the state of being astonished.

† *Example.*—**Glad**, *gladd-en*, to make glad; *glad-ness*, state of being glad; *glad-some*, full of gladness.

USEFUL KNOWLEDGE.

THE THERMOMETER.

THE temperature of a body is usually found by means of an instrument called a *thermometer*. [Gr. *thermē*, heat; and *metron*, a measure.] The principle on which this useful instrument is constructed is very simple. It is this:—

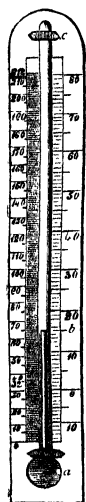


FIG. 1.

Almost all bodies expand when heated, and contract when cooled. But those only are fit to act as measures of heat that expand and contract equally, and to a considerable amount; that is, if they expand or contract 1-100th of an inch for a certain change of heat, their dimensions shall be altered 2-100ths of an inch for double the amount, 3-100ths for triple, and so on. No known body possesses this property in perfection, but several approach very near it, as long as the heat does not greatly exceed that of boiling water. Quicksilver, or mercury, is one of these bodies, and is the one ordinarily employed in measuring degrees of heat.

To do this with accuracy, two fixed points, called the freezing point and the boiling point of water, are first ascertained; and the space between them is then graduated, or divided into degrees, as follows:—Having filled the bulb, *a* (Fig. 1), and part of the hair-like tube, *b*, with mercury, expel the air from *b c*, and close the open end, *c*. If the tube be then plunged in a vessel filled with melting ice, the mercury will be found to shrink until it settles at a point marked 32° on the left side of Fig. 1. This point is therefore called the freezing point. Now, place the tube in the steam of boiling water—the mercury rapidly ascends until it settles at 212°. At whatever point near the sea-level this experiment is made, the result is always the same. We say, near the sea-level; for the higher the elevation, the lower the temperature at which water boils. Hence 212° is called the boiling point. Now, $212^{\circ} - 32^{\circ} = 180^{\circ}$; and hence every

one hundred-and-eightieth part of the space between the freezing and the boiling points gives 1° of heat.

In France, and other countries, the freezing point is called 0°, or zero, and the boiling point 100°, as in Fig. 2. In these countries, therefore, each hundredth part of the space between the two points is 1° of heat. The former of these modes of reckoning is called the Fahrenheit scale, from a German of that name by whom it was first adopted in manufacturing thermometers; the latter is called the Centigrade (that is, *Hundred-degree*). It is easy to pass from the one to the other; for $100^{\circ} \text{ C.} = 180^{\circ} \text{ F.}$, or $1^{\circ} \text{ C.} = 1\frac{1}{2}^{\circ} \text{ F.}$, and $1^{\circ} \text{ F.} = \frac{5}{9}^{\circ} \text{ C.}$ But in performing these reductions it has to be borne in mind that zero in the scale of Fahrenheit is 32° F. below the zero of the Centigrade scale, the freezing point of water.

Another division, used in Germany and Russia, in which the freezing-point is 0° and the boiling-point of water 80°, is shown on the right of Fig. 1.

Spirit of wine (alcohol) is sometimes used instead of mercury. There is an advantage in this, when the temperature to be measured may fall to 39° below zero of Fahrenheit's thermometer, for then mercury freezes, while spirit of wine has never been known to freeze. There is an advantage in alcohol, also, when very slight changes are to be noted. All liquids are not equally expanded by the same heat; and spirit of wine is found to expand six times as much as mercury. Hence each degree as marked on a spirit thermometer is six times as long as it would be on a mercury thermometer of exactly the same size of bulb and tube. Thus, on the spirit thermometer small changes, say of quarter or half a degree, are more quickly seen. This is expressed by saying it is *more sensitive*. But as the spirit boils at 173°, it is useless for measur-



FIG. 2.

ing degrees above that; while the mercury might be used up to 600°, if made with a long enough tube. Hence a mercury thermometer can measure a greater difference of temperature than a spirit one; and this is expressed by saying it has the *greater range*.

THE BAROMETER.

THE weight of the atmosphere at any place is constantly changing, as well as its temperature. Conceive a tube, of which the base is exactly an inch square, rising from the sea-shore to a point in the atmosphere where the air ceases to have any apparent weight. Then fill another tube, of which the base is also an inch square, with mercury, to a height of 30 inches. Now, it has been found that the weight of the column of air in the first tube is equal to that of the mercury in the second—viz., 15 pounds.

The air is perhaps 50 miles high, the other is only 30 inches; but the latter makes up in density what it wants in height. Hence we speak of the air exerting a pressure of 30 inches of mercury, or of 15 pounds on every square inch at the sea-level. But the pressure, or weight, diminishes every foot we ascend from the shore into the interior of a country. For twenty or thirty feet of height the difference may not be perceptible, but at a few hundred feet there is no mistaking it.

The instrument that enables us to measure the varying weights of the air is the *barometer* [Gr. *baros*, weight; and *metron*, a measure], which is simply a glass tube closed at one end, and open at the other. When filled with mercury, and inverted over a cup or basin containing the same metal, (as in Fig. 3.) the weight of the air outside supports the mercury inside the tube. The height at which the mercury stands, whether 30 inches, or 29.5 inches, or 27.4 inches, is called a *reading*.

Some barometers are made with a dial, or face, like a clock. (Fig. 4.) In this case, the lower end of the glass tube containing the mercury is bent upwards. A small glass weight rests on the mercury, and rises or falls as the mercury rises or falls. A thread attached to this weight turns the wheel

with which the hand or pointer of the barometer is connected. When the mercury falls, the pointer is deflected to the left, towards the points marked "Rain," &c.; when it rises, the pointer is turned towards the right, marked "Fair," &c.

As the weight of the air becomes less the higher we ascend, the barometer enables us to ascertain the altitude we have reached; but there are various circumstances to be taken into account that render the calculation less easy than at first sight appears.

There are several other means of ascertaining the height of places above a given point. Of these, one of the most curious is the temperature at which water boils.

Thus, at Quito, in South America, which is 9540 feet above the ocean, the boiling point of water is only 196° F.; and in the Hospice of St Gothard, in Switzerland, at an elevation of 6800 feet, it is 199° F. As a general rule, it may be said that for every 550 feet of rise, the boiling point of pure water falls 1° F.

To the husbandman the barometer is of considerable use, as a means of indicating coming changes in the weather. Its use as a weather-glass, however, is greater to the mariner, who roams over the whole ocean, and is often under skies and in climates altogether new to him. The watchful captain of the present day, trusting to this infallible monitor, is frequently enabled to take in sail, and to make ready for a storm, where in former times the dreadful visitation would have fallen upon him unprepared.



FIG. 3.

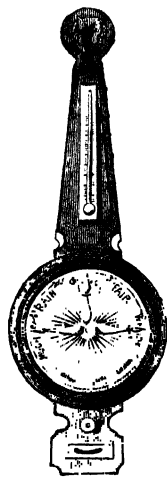


FIG. 4.

GREAT INVENTIONS.

(FOR ORAL EXAMINATION AND COMPOSITION EXERCISES.)

POTTERY MANUFACTURE.

THE pottery manufacture—the making of bricks and vessels out of clay—is one of the very oldest in the world. It existed among the Egyptians, the Assyrians, the Babylonians, and the Hebrews, many centuries before the Christian era. The Egyptians not only made the ordinary kinds of *pottery* or earthenware, they also made a kind of *porcelain*, by fusing fine sand and covering it with a silicious or flinty glaze of various colours. The Assyrians were the first to mix colouring material with the clay.

Porcelain differs from *pottery* in being made of finer materials.

500 B.C.—The most remarkable ancient pottery was that of Greece. The Greeks decorated their vases by attaching ornaments to them in separate pieces, and by painting pictures on them.

320.—The most famous early Italian ware was the **Etruscan** (from *Etruria*, the modern Tuscany). One of its chief peculiarities was that it had figures moulded or modelled on the vases in bas-relief (*low-relief*; the figures raised a little above the surface).

185.—Hard porcelain was invented by the Chinese, and has therefore been called *China*.

Porcelain is of two kinds, *hard* and *soft*. The glaze of the former cannot be scratched with a knife, the surface of the latter can.

1 to 300 A.D.—The **Roman** pottery was an offshoot from the Etruscan. The Romans spread the manufacture over the whole empire.

476.—With the fall of the Western Empire the pottery art became extinct in Europe.

711.—The **Moors**, who had inherited the art of glazing and colouring tiles from the Egyptians and Assyrians through Alexandria, introduced specimens of it into Spain.

1115.—Enamelled earthenware, of Moorish origin, is said to have been introduced into Italy from Majorca; the ware was therefore called *Majolica*.

1440.—Enamelled *Fayence* (so called from Fayence, a town in Provence; or from Faenza, in Italy) was first used by Luca della Robbia, an Italian, in ornamenting terra cotta in relief.

1555.—Bernard Palissy, the famous French potter, discovered the mode of producing white enamel. He ornamented dishes with fruit and animals moulded from nature, and arranged on the surface.

Palissy was born in 1510. Having seen a Fayence cup, he resolved to discover how the enamel was made. He devoted sixteen years to experiment and investigation before he attained success. During that time he and his family endured many hardships, and he was often reproached by his wife for his cruelty, while he was laughed at by his neighbours for his folly. His discovery very soon made him rich and famous. Though a Huguenot, he was specially exempted from the Massacre of St. Bartholomew; but in 1588 he was thrown into the Bastille as a heretic, and he died there in 1590. Palissy was also eminent as an early investigator in physical science.

1698.—Soft porcelain was made at Bow, near London, and at Chelsea.

1700.—A ware called red Japanese was produced at Burslem (Staffordshire) by German settlers from Nürnberg.

1709.—White *kaolin* (the material of which porcelain is made) having been discovered in Saxony, an alchemist, named Böttcher, made from it white hard porcelain at Meissen, near Dresden. This was the first hard porcelain made in Europe.

Böttcher was a scientific enthusiast. He spent some years, and large sums of money, in endeavouring to discover the philosopher's stone, with the help of which he hoped to be able to make gold. He had received grants of money from the Court of Saxony; and as a penance for the failure of his experiments, he was obliged to apply his skill to the manufacture of porcelain. The Meissen porcelain was the result. The secret of the manufacture was guarded with the utmost jealousy. Oaths were imposed upon the workmen; and when Saxony was invaded by Charles XII. of Sweden, in 1706, the whole establishment was secretly removed to Königstein. Böttcher died in 1719.

1710.—The German settlers left Burslem, and established the Lambeth factories. They believed that a Staffordshire potter named Astbury had discovered their process.

1720.—The secret of Böttcher's manufacture was carried to Vienna by a workman of Meissen, and a porcelain manufactory was set up there. In the same way, knowledge of the art soon spread over Germany, and even into other countries.

1720.—The use of calcined flint in pottery was first introduced by Astbury.

It is said to have been suggested to Astbury by seeing an hostler burn a piece of flint and reduce it to powder, which he applied to a horse's eyes to cure some disease. Astbury was struck with the beautiful whiteness of the powder, and resolved to experiment with it.

1749.—Porcelain was first painted on by Thomas Frye.

1750.—Cornish clay, the finest china clay in Great Britain, was discovered by Cookworthy of Plymouth. It was employed by Josiah Wedgwood, who was the father of British pottery as an art.

Wedgwood was born at Burslem in Staffordshire, in 1730. From his first entry into business, he devoted his energies most zealously to the improvement of the manufacture. He succeeded in two directions: first, in refining the material; second, in improving the form and design of his goods. In connection with the latter, he availed himself of the aid of Flaxman, the great sculptor. The patent *Wedgwood ware* was first made in 1762. In 1771 he removed to larger works which he had built at Etruria, a few miles from Burslem. There he died in 1795. He had amassed a large fortune, which he dispensed with noble liberality. Like Palissy, he was also an ardent student of natural science.

1751.—Porcelain is said to have been first printed on in a factory at Worcester, founded by Dr. Wall.

1765.—The accidental discovery of *kaolin* in France led to the establishment of the famous hard porcelain factory at Sèvres, near Versailles.

1850.—Great improvements in the pottery manufacture were introduced by Herbert Minton of Staffordshire (died 1858). He and Copeland introduced statuary made of parian, a fine kind of porcelain resembling marble.

QUESTIONS.—What is said of the antiquity of the pottery manufacture? Among what ancient nations did it exist? What did the Egyptians make besides ordinary pottery? Who were the first to colour the clay of their bricks? Which was the most

remarkable ancient pottery? How did the Greeks decorate their vases? What was the most famous early Italian pottery? What was one of its chief peculiarities? By whom was hard porcelain invented? From what was the Roman pottery an offshoot? When did the art become extinct in Europe? By whom was it reintroduced? Through what country? What is *Majolica*? Why was it so called? What is *Fayence*? Whence was the name derived? Who first used it? Who discovered the mode of producing white enamel? What use did he make of it? How long did he experiment before he succeeded? What mark of royal favour was shown to him, though a Huguenot? What was his fate? Where was soft porcelain first made in England? When? Where was the red Japanese ware produced? By whom? By whom was hard

porcelain first made in Europe? Where? What led to this? To what had Böttcher devoted his early life? Why was he employed in pottery work? What means were taken to prevent the secret from spreading? Why did the German settlers leave Burslem? Where did they go? How was Böttcher's secret carried to Vienna? Who first introduced calcined flint in pottery? What suggested its use? What discovery led to the rise of the British pottery manufacture? Who was chiefly instrumental in raising it? What were his two great improvements? When was Wedgwood ware first made? When did Wedgwood die? Where is the celebrated French porcelain factory? What led to its establishment? By whom was porcelain first painted on? When and where was it first printed on? Who introduced statuary made of porcelain? What is it called?

SILK MANUFACTURE.

551 A.D.—The secret of making silk thread was first made known in Europe by two monks, who brought some silk-worm eggs from China, concealed in a hollow cane.

1146.—The manufacture of silk was fostered in Palermo by Roger, King of Sicily. The Sicilians bred the caterpillars, and spun and wove the silk.

1510.—The manufacture spread about this time into Italy, Spain, and the south of France.

1585.—The manufacture was introduced into England by refugees from the Low Countries during the government of the Duke of Parma.

1589.—A frame for weaving silk stockings was invented by the Rev. William Lee, of Cambridge. This gave a great impulse to the manufacture in England.

Lee is said to have caught the idea of his stocking-frame while watching his wife's nimble fingers busily occupied with her knitting wires. Lee reaped little profit from his invention. Neglected in England, he went to France, and died in great distress at Paris.

1604.—James I. of England encouraged the cultivation of mulberry trees, and the breeding of silk-worms.

1629.—The silk-throwsters, dyers, and weavers of London were incorporated.

A *throwster* is literally a woman (*-ster*) who *throws*—that is, *twists*—the silk yarn. In 1660, this corporation employed 40,000 hands.

1685.—On the revocation of the Edict of Nantes by Louis XIV. of France, thousands of Protestant workmen left that country. Those who took refuge in England established the silk manufacture at Spitalfields (East London).

1718.—A silk-throwing mill on the Italian model was set up at Derby by John Lombe.

Lombe went to Piedmont in 1715, and secretly obtained access to the mills there. He carefully examined the machinery, and made drawings and models of its parts. He, and two Italians who were in his pay, had to fly for their lives. The result was the erection of the "Old Silk Mill" at Derby, at a cost of £30,000. Lombe is said to have been slowly poisoned by emissaries of the Italian silk manufacturers (1739).

1806.—Joseph Marie Jacquard, a native of Lyons (France), invented an apparatus attached to the silk loom by which the most complicated designs may be woven by ordinary workers.

The pattern is registered on bands of punched cards acting on needles with loops and eyes. These cards regulate the elevation of certain of the warp threads and the depression of others at each movement of the loom. Jacquard met with the usual reward of great inventors. The weavers of Lyons combined to mar the successful working of his apparatus, and at last his machine was publicly broken up in one of the squares of the city. But before his death in 1835, the Jacquard Loom had not only been introduced into every silk factory in France, but had made its way into England and other manufacturing countries of Europe, into America, and even into China. The same contrivance has since been applied to the manufacture of carpets and other fabrics.

QUESTIONS.—How was the secret of silk-making first brought into Europe? When? Where was the manufacture fostered in the twelfth century? When did it spread into Italy and Spain? What led to its introduction into England? Who invented the stocking-frame? When? What suggested the idea? Where did Lee die? What English king encouraged the native production of silk? Who established the silk manufacture at Spitalfields? What led to

their expatriation? When was the "Old Silk Mill" at Derby erected? What was peculiar in it? By whom was the secret found out? How did he obtain it? How is he said to have died? What is the peculiarity of Jacquard's loom? How is the pattern regulated? How was Jacquard's invention treated at Lyons? What progress had it made before his death? To what other manufactures has the contrivance been applied?

PAPER MANUFACTURE.

190 B.C.—Parchment, made from the skins of animals, chiefly goats, was invented by Eu'menes, King of Per'gamus (in Asia Minor), founder of the famous library there.

Before that time, the pith of the reed *papy'rus* (from which *paper* received its name) was used in Egypt and India to make the thin film on which writings were preserved.

170.—Paper is said to have been invented in China.

There is no doubt that the Chinese made paper from pulp artificially prepared as early as the beginning of the Christian era. From that time till the twelfth century very little is known of the progress of the manufacture. The knowledge of the art seems, however, to have gradually travelled westward, through Tartary, Arabia, Egypt, and Mauritania. The Moors are said to have introduced the manufacture into Spain about 1100 A.D.

1242 A.D.—The earliest existing specimen of linen paper made in Europe belongs to this year.

It has written on it a mandate of Frederic II., Emperor of the Romans, which bears this date. It was found in an Austrian monastery.

1590.—The first paper-mill in England was erected at Dartford (Kent); and there coarse white paper was made.

The Dartford mill was built by Sir John Spielmann, a German, who died there in 1607.

1685.—A process was patented by John Briscoe for making English paper "as white as any French or Dutch."

Before this time, nearly all the writing and printing paper used in England was imported from France and Holland, at a cost to the country of £100,000 a year. Among the refugees whom the revocation of the Edict of Nantes (1685) drove to England were some paper-makers. From them the English learned the secrets of the manufacture.

1801.—Fourdrinier, a Frenchman, obtained a patent in England for paper-making machinery.

It is believed that the machine was first suggested by Louis Robert of Paris, who sold his model to Francis Didot, the great French printer. Didot took the model to London, and, with Fourdrinier's help, made improvements on it.

1805.—Joseph Bramah, the inventor of the Bramah lock and the hydraulic press, patented improvements on the paper-machine.

1807.—Fourdrinier obtained a second patent—for manufacturing paper in a web of indefinite length.

1856.—The use of *Esparto*, or Spanish grass, was introduced and patented by E. Rutledge.

1857.—Parchment paper was invented and patented by W. E. Gaine.

Paper is passed through diluted sulphuric acid, and is immediately converted into a tough, skin-like material. A similar discovery had been made at Paris in 1846.

1861.—The paper duty was repealed by the British Parliament.

QUESTIONS.—Who invented parchment? When? What was used for writing on before that time? What is the origin of the word *paper*? Who are said to have first used paper made of pulp? When? By whom was the manufacture first introduced into Europe? To what year does the earliest specimen of linen paper found in Europe belong? Where and when was the first

English paper-mill erected? Where was most of the white paper used in England got before 1685? Who patented the first paper-making machine? Who was the inventor of it? What English inventor made improvements on it? When was the use of *Esparto* patented? What is parchment paper? When was the paper duty repealed?

THE ART OF PRINTING.

1438 A.D.—Lawrence Coster of Haarlem, in Holland, invented printing from movable wooden types.

He was in the habit of cutting letters out of beech-tree bark for the amusement of his grandchildren. On one occasion he had wrapped some of these letters in parchment, and observed the impression they had left upon it. In the block books in use before his time, a separate block had to be cut for each page. Coster could arrange and rearrange his wooden letters in any order he liked. He is said also to have invented a printing ink, and to have made some experiments with lead and pewter types. Coster was warden of a church at Haarlem.

1444.—John Guttenberg of Mentz, in South Germany, invented printing from cut metal types. He learned the art of printing, so far as it had been developed, from Coster, with whom he became acquainted at Haarlem.

Persecuted at Strasburg, and driven penniless from the town, he returned to Mentz. There he started a printing office in partnership with John Fust and Peter Schoeffer (Fust's son-in-law). The jealousy of his enemies drove Guttenberg from Mentz; but his partners contrived to conciliate them. Guttenberg retired to Nassau, where he printed many works, and died in 1468.

1452.—Printing from metal types *cast* in moulds was invented by **Peter Schoeffer**; but no work was produced from them till 1459.

Schoeffer continued in partnership with his father-in-law, Fust, at Mentz, for some years longer. The Sack of Mentz, about 1464, spread the art of printing to other towns. Fust died about 1467, and Schoeffer in 1502.

1471.—**William Caxton**, a London mercer, set up the first English printing-press at Westminster.

He had learned the art in Flanders, where he had gone as the agent of the Mercers' Company of London. He died in 1491.

1509.—Printing was first introduced into Scotland.

1730.—Stereotyping was invented by **William Ged**, a goldsmith of Edinburgh.

In stereotyping, a plaster mould of the page of type is taken; and from this mould a solid plate in type-metal is cast, which corresponds exactly with the original types. The types are thus set free for other work, while the stereotype plates are stored and may be used at any time.

1800.—An improved printing-press was invented by the **Earl of Stanhope**. The Stanhope press came into general use about 1806.

1814.—The first steam printing-machine was erected in the office of *The Times*, London.

1818.—A simpler machine was introduced by **Cowper** and **Applegath**.

1827.—**Cowper** and **Applegath** constructed a four-cylinder machine, producing 5000 copies in an hour.

1848.—**Applegath's** eight-cylinder machine, having the types arranged in vertical columns on a central drum, was erected in the *Times* Office. It produced 12,000 copies in an hour, printed on one side.

1850.—Electrotyping began to be generally applied to stereotype plates. It covers the plates with a deposit of copper, which makes them much more durable.

1858.—**Hoe's** American machine, with ten feeding cylinders, and stereotype plates on the central drum, was erected in the *Times* Office. It printed on one side 20,000 copies in an hour.

1866.—The first "Walter Press" was completed in the *Times* Office. It feeds itself with paper from a continuous web; prints both sides at one operation; supplies itself with ink; damps the paper; cuts it into sheets; and registers the number of impressions. It produces from 12,000 to 15,000 perfected copies, (printed on both sides) in an hour.

QUESTIONS.—When was printing from wooden types invented in Europe? By whom? What suggested the invention? What office did Coster hold? Who invented printing from cut metal types? When? What led him to interest himself in printing? How was Guttenberg treated at Strasburg and at Mentz? When were metal types first cast in moulds? By whom? What spread the art of printing from Mentz to other towns? By whom was printing introduced into England? When? How had Caxton learned the art? When was printing introduced into Scotland? When was stereotyping invented? By whom? Who invented an improved printing-press in 1800? When and where was the first steam printing-press erected? What was the peculiarity of Applegath's machine of 1848? What is electrotyping? When did it begin to be used? What American invention improved upon Applegath's? When? What is remarkable in the Walter Press? Where was it first erected?

IRON MANUFACTURE.

1740 A.D.—About this time coal began to be used in the smelting of iron. Previously it had been smelted entirely with charcoal, which proved a great barrier to cheap production. The consequence was, that Britain had to import from Sweden and Russia two-thirds of the bar-iron she needed. In 1740 the amount of iron produced in England and Wales was little over 17,000 tons; in 1850 it was 2,000,000; and in 1865, 4,800,000.

1785.—**Henry Cort**, an ironmaster at Gosport near Portsmouth (Hampshire), invented the process of converting pig-iron into malleable iron by the flame of coal in the puddling furnace. He further invented a process for drawing wrought-iron into bars by means of grooved rollers.

The frauds of a partner, who held a government office, involved Cort in ruin—for he was deprived of his patent-rights—and he died ten years later broken-hearted and poor. The puddling consisted originally in stirring the melted iron in the furnace with rakes, so as to bring every portion of it in contact with the air. This was afterwards accomplished by means of a blast-furnace—a large conical furnace, in which blasts of air are sent through the iron by means of tubes inserted at several places.

1828.—The hot-air blast was invented by **James Neilson** of Glasgow. This improvement effected an enormous saving of fuel, as the cold-air blast greatly reduced the heat of the furnace.

1856.—A plan for improving the manufacture of iron and steel, by means of forcing jets of air through the melted iron, was made known by **Henry Bessemer**.

QUESTIONS.—When did coal begin to be used in the smelting of iron? What had previously been used? What was the consequence of this to Britain? What were Cort's two inventions? What caused his ruin? In what did the puddling consist? For what purpose? How was this afterwards effected? When was the hot-air blast invented? By whom? How did it effect an enormous saving of fuel? What is Bessemer's process? When was it made known?

THE STEAM-ENGINE.

1615 A.D.—A French engineer raised water from a well to a chamber placed over it, by filling the chamber with steam, and then condensing it, so as to create a vacuum. The water was, in this case, forced up to fill the vacuum by the pressure of the atmosphere.

1663.—The **Marquis of Worcester** described a machine which raised water by the pressure of steam on its surface.

1698.—An apparatus for raising water both by vacuum and by pressure was patented by **Captain Savery**, an Englishman.

1705.—A separate steam apparatus, with cylinder, piston, and beam, was patented by **Thomas Newcomen**, a locksmith of Dartmouth (Devonshire). This was called an atmospheric engine. No important change was made on it till 1765.

1765.—**James Watt** constructed a working model of an engine in which the condensation was performed in a vessel separate from the cylinder. He obtained his first patent for this in 1769.

Watt was born at Greenock in 1736. While yet a child of six years he was found amusing himself with geometrical problems. After a year spent in London, he became, in 1758, mathematical instrument maker to Glasgow College. In this capacity he had a model of Newcomen's engine intrusted to him for repair. Its working was so unsatisfactory that he was led to devise improvements, the most important of which was the separate condenser. In 1775, his patent being renewed by Act of Parliament, Watt entered into partnership with Matthew Boulton for the manufacture of engines on a large scale at Soho, near Birmingham. He introduced further improvements in his engines from year to year. In 1800, having been very prosperous, he retired from business, and occupied himself with his favourite studies till his death, in 1819.

<p>QUESTIONS.—What was the earliest application of steam to a mechanical purpose? When was this machine made? How was the water raised by the Marquis of Worcester's machine? What was the nature of Savery's patent? When was the first engine with a separate steam appara-</p>	<p>tus made? What great improvement did Watt make on this engine? When and where was Watt born? How was the subject of the steam-engine brought under his notice? Into what business did he then enter? How did he occupy the later years of his life? When did he die?</p>
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STEAM NAVIGATION.

1785 A.D.—Patrick Miller of Dalswinton, in Dumfries-shire, invented paddle-wheels,—patented, 1787.

1786.—James Symington made a working model of a locomotive engine, which he exhibited in Edinburgh.

1788.—Symington and Miller constructed a small steamboat (with engine and paddle-wheels) which was launched in Dalswinton Loch, in Dumfries-shire (called “the cradle of the steamboat”), and went at the rate of five miles an hour.

1802.—Symington started a steamboat on the Forth and Clyde Canal; but it was disused, as the company feared injury to the banks of the canal.

1803.—Robert Fulton, an American, placed a steamboat on the Seine, which attracted the notice of Napoleon.

He was an artist by profession, but from boyhood he was passionately fond of mechanics. In England, he made the acquaintance of Dr. Cartwright, the inventor of the power-loom; the Duke of Bridgewater, the great canal projector; and the Earl of Stanhope, the inventor of a printing-press. He visited Scotland in 1800, and was introduced to Symington, who supplied him with every information respecting his steamboats.

1807.—Fulton started a steamboat (*Clermont*) on the river Hudson in America. He died in 1815.

1812.—The first steamboat used in Europe for commercial purposes (*The Comet*) was built on the Clyde by Henry Bell.

Bell procured the funds necessary for his enterprise while carrying on the trade of carpenter in Glasgow. Wealthy rivals soon drove him off the field; and he sank into poverty and neglect. He obtained a small annuity from the Clyde Trustees, and died in 1830. Before that time, steam navigation had made great advances. David Napier of Glasgow had started steam-packets between Greenock and Belfast, Dover and Calais, Holyhead and Dublin, Liverpool and Greenock, and other ports.

1819.—A steam-vessel (*The Savannah*) for the first time crossed the Atlantic, from New York to Liverpool.

1825.—Captain Johnson was awarded £10,000 for making the first steam voyage to India, in *The Enterprise*, which sailed from Falmouth to Calcutta.

1838.—Steam-vessels began to ply regularly between England and America. *The Sirius* from Cork, and *The Great Western* from Bristol, made the first passage, arriving at New York on the same day, 23rd April. In the same year war-steamers began to be built in England.

1858.—The largest steam-vessel in the world, *The Great Eastern*, was launched at Millwall (London). This vessel is 692 feet long, and 83 feet broad. In 1864 she was used to convey the Atlantic Telegraph cable.

QUESTIONS.—Where and when was the first steamboat launched? By whom was she made? What led these two men to work together? Where was the first steamboat started for traffic? Why was she disused? From whom had Fulton obtained information respecting the invention? Where and when did he start a steamboat? By whom was the first steamboat used in Europe built? Where and when was she launched?

What trade had Bell followed in Glasgow? In what circumstances did he die? When did the first steam-vessel cross the Atlantic? When was the first steam voyage to India made? What regular traffic began in 1838? When did war-steamers begin to be built? Which is the largest steam-vessel in the world? Give her length and breadth. For what purpose was she used in 1864?

COTTON MANUFACTURE.

1767 A.D.—James Hargreaves, a weaver near Blackburn (Lancashire), invented a spinning-jenny with eight spindles. Spinning had previously been done by hand, with the help of a spinning-wheel.

Hargreaves' neighbours destroyed his jenny, and drove him from the place. When he took out a patent for his machine, the manufacturers leagued themselves against him, and he died in obscurity and distress in 1777.

1769.—Richard Arkwright patented his water-frame spinning-machine; so called because at first driven by water power.

He began life as a barber at Bolton (Lancashire). He was at first persecuted and neglected; but he secured the partnership of Messrs. Need and Strutt of Nottingham, and became very prosperous. In 1771 he erected large spinning mills in Derbyshire. He was knighted; and at his death in 1792 he left a fortune of half a million.

1779.—The mule, in which the spindles are arranged in a movable carriage, was invented by Samuel Crompton, a native of Lancashire. It produced yarn of treble the fineness of any previously made in England, and very much softer.

This invention gave a great impetus to the cotton manufacture, and through it to civilization and comfort. Crompton did not patent his invention, but threw it open to the world. It is believed that there are now thirty millions of these mules in use in Great Britain alone. Crompton received a vote of £5000 from Parliament in 1812; but this was swallowed up in paying his debts, and he died in poverty and neglect in 1827.

1785.—Dr. Cartwright invented the power-loom weaving machine. Weaving had previously been done by hand-loom; but it was found that the spinning-machine lately invented could produce far more yarn than the hand-loom could employ.

Cartwright, who began life as a country clergyman, was maligned and persecuted both by masters and by men, and very soon lost the large fortune which he had embarked in his schemes. In 1808 Parliament voted him a grant of £10,000. He died in 1823.

In the same year in which Cartwright invented his power-loom, Messrs. Boulton and Watt erected the first steam-engine in connection with the cotton manufacture.

QUESTIONS.—Who invented the spinning-jenny? When? Who invented the water-frame? Why was it so called? Whose partnership did Arkwright secure? What fortune did he leave at his death? What is the mule? By whom was it invented? When? What kind of work did it turn out? When and in what state did Crompton die? How many mules are now said to be in use in Great Britain alone? When was the power-loom weaving machine invented? By whom? What made a demand for the invention? When was steam first applied to the cotton manufacture?

THE RAILWAY AND THE LOCOMOTIVE.

1801.—An iron rail-way or tram-road, from the Thames at Wandsworth, a western suburb of London, to Croydon, ten miles southward, was made with the sanction of Parliament.

The name Tram-road is said to be a corruption of Outram-road, from Mr. Benjamin Outram (father of Sir James, the Indian General), who in 1800 made great improvements in the system of rail-roads in England. Clumsy wooden and imperfect iron rail-roads had been in use, chiefly in connection with mines, long before Outram's time.

1802.—Mr. Trevithick, a Cornishman, patented a high-pressure locomotive; but he lost conceit of his invention, and abandoned his scheme.

1814.—George Stephenson constructed a locomotive which drew eight loaded trucks, weighing 30 tons, along a colliery tram-road at the rate of six miles an hour.

George Stephenson was the son of a colliery fireman. He began life as a cow-herd at 2d. a day. He was almost entirely self-educated; and his triumphs were the result of his indomitable perseverance, as much as of his skill as a mechanician. In establishing railways and locomotives, he had to fight against innumerable prejudices and violent hostility. His son Robert was very helpful in enabling him to gain the victory. George Stephenson died in 1848; Robert, in 1859. The latter is buried in Westminster Abbey.

1825.—The Stockton and Darlington Railway (in Durham) was completed by Messrs. Pease and Stephenson.

1829.—Stephenson's engine, the *Rocket*, gained the prize of £500 offered for the best locomotive by the Liverpool and Manchester Railway Company. The conditions were, that it should weigh not more than six tons, and run at the rate of ten miles an hour. The *Rocket* travelled at the rate of twenty-nine miles an hour.

1830.—The Liverpool and Manchester Railway, constructed by George Stephenson, was completed and opened. This line laid the foundation of the railway system of England, and led to similar enterprises all over the world.

QUESTIONS.—Where was the first iron rail-way made? When? What is said to be the origin of the word Tram-way? In what connection had rail-roads been used before Outram's time? Who was the first to patent a high-pressure locomotive? When did Stephenson construct his first locomotive? What was Stephenson's father? How did he begin life? To what were his triumphs due? Who was very helpful to him in his fight against prejudices? When did father and son respectively die? When was the Stockton and Darlington Railway completed? What was the *Rocket*? At what rate did it travel? What line laid the foundation of the railway system of England? When and by whom was it constructed?

THE ELECTRIC TELEGRAPH.

1800.—The Voltaic battery was invented by **Professor Volta**, of Pavia in Italy. It was composed of discs of zinc and silver, and moistened card.

1819.—**Ersted**, a Danish physicist (died 1851), discovered the action of the electric current on a magnetic needle; which laid the foundation of electro-magnetism and telegraphy.

1836.—An electro-magnetic apparatus was made by **Professor Wheatstone**, by which thirty signals were transmitted through nearly four miles of wire.

Wheatstone was brought up as a maker of musical instruments. In 1834 he was appointed a professor in King's College, London.

1837.—The magnetic needle telegraph, patented by **Wheatstone** and **W. F. Cooke**, was tried between Euston Square in London, and Camden Town, one of its northern suburbs, with entire success.

Cooke, who was a retired Indian officer, excelled in practical skill, as much as Wheatstone did in scientific knowledge.

1838.—The first telegraph line (from Paddington in London to West Drayton, thirteen miles westward,) was set up by Cooke.

1844.—The first telegraph line in America (from Washington to Baltimore) was set up by **Professor Morse**, the inventor of a very simple self-recording telegraph.

Morse began his experiments in 1832, and finished his first complete model (independently of other inventions) in 1837. He died in 1872.

1846.—The first English electric telegraph company was established.

1851.—The first submarine telegraph cable (between Dover and Calais) was successfully laid. The wire was enclosed in a covering of gutta-percha, which was suggested as an "insulator" by Faraday, in 1847.

1857.—The first attempt to lay an Atlantic cable was made, but when 300 miles had been paid out the cable snapped.

1858.—A cable was successfully laid between Ireland and Newfoundland; but in a few weeks a leak in the rope rendered it useless. In this year London and Constantinople were connected by telegraph.

1865.—Another attempt was made to lay an Atlantic cable; but the rope snapped in mid-ocean. London and Bombay were connected by telegraph.

1866.—A new Atlantic cable was successfully laid, and the lost cable of 1865 was recovered, spliced, and completed.

1869.—The British telegraphs were transferred to the Government, to be managed in connection with the Post Office.

1869.—A cable connecting France and America was laid between Brest and St. Pierre, a small island south of Newfoundland.

QUESTIONS.—When was the Voltaic battery invented? What discovery laid the foundation of electro-magnetism and telegraphy? By whom was the first electro-magnetic apparatus made? When? By whom was the first practical experiment in telegraphy made? When? Where? When and where was the first telegraphic line set up? Who was the American inventor of the telegraph? When was the first submarine telegraph laid? When was the first attempt made to lay an Atlantic cable? When was the cable successfully laid? What submarine cable was laid in 1869?

PART II.

JERUSALEM FROM THE MOUNT OF OLIVES.

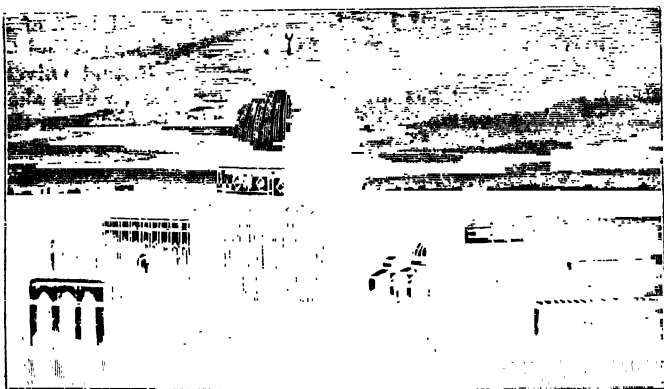
MORNING dawned; and I ascended to the terraced roof of a little tower on the western side of Olivet,¹ rented by a friend to whom every spot in Jerusalem was 'familiar. Behind Olivet, in the east, the sky was all aglow with red light, which shot slanting across the hill-tops and projecting cliffs, and upon the walls and 'prominent buildings of the city, throwing them up in bold relief from the deeply-shaded glens. No time could have been more 'opportune, no spot better fitted for seeing and studying the general 'topography of the Holy City. The whole site was before us, distinct and full, like a vast and beautiful embossed picture.

At our feet, along the base of Olivet, was the Kidron,² a deep and narrow glen, coming down from an 'undulating plateau³ on the right, and disappearing round the shoulder of the hill on the left; its banks terraced, and dotted here and there with little groves and single olive trees. Directly opposite us was Mount Moriah,⁴ its bare sides rising 'precipitously from the bottom of the Kidron to a height of some two hundred feet.

On its summit is a rectangular platform, about thirty acres in extent, and taking up fully one-half of the eastern side of the city. It is 'encompassed and supported by a massive wall, in some places nearly eighty feet high, and looking even higher where it impends over the ravine. This platform constitutes by far the most striking feature of the city. It is 'unique. There is nothing like it in the world. Its history, too, is wonderful. It has been a "holy place" for more than thirty centuries.

Its Cyclope'an⁵ walls were founded by Solomon. Upon it stood the Temple, in whose shrine the Glory of the Lord so often appeared, and in whose courts Christ so often taught. It is still to the Moslem⁶ "the Noble Sanctuary," and, next to Mecca,⁷ the most 'venerated sanctuary in the world.

The platform itself—simple, massive, and grand—is a striking object; but the buildings it contains greatly contribute to its beauty. In its centre, on a raised area of white marble, stands the Mosque of Omar,⁸ one of the most splendid mosques in the world, 'octagonal in form, encrusted with 'encaustic tiles of gorgeous colours, and surmounted by a graceful dome. From its area the ground slopes away to the encircling ramparts in gentle undulations of green turf, 'diversified with marble arcades, gilded cupolas, fountains, and prayer-niches;—all 'interspersed with venerable cypresses, olives, and palms.



MOSQUE OF OMAR.

At the southern end is a large group of stately buildings, including the Mosque el-Aksa, once the Church of the Virgin; and round the sides of the platform are cloisters, here and there covered with domes, and surmounted by tall minarets. The quiet seclusion of this sanctuary, the rich green of its grass and foliage, the 'dazzling whiteness of its pavements, and fountains, the brilliant tints of the central mosque, and, above all, its sacred associations, make it one of the most charming and interesting spots on Earth.

Just behind Moriah the Tyrope'an Valley⁹ was distinctly marked by a deeply-shaded belt, running from north to south through the city. Beyond it rose Zion, higher and longer than Moriah; in front, a 'confused mass of terraced roofs, tier above tier; farther back were seen the white buildings of the Armenian Convent,¹⁰ like an immense factory; more to the right

the new English Church ; and in the back-ground, crowning the hill, the massive square keep of the Castle of David.¹¹

The southern section of Zion is now outside the city wall ; and there a high minaret and cupola mark the Tomb of David. From it the hill sinks into the Valley of Hin'nom in steep terraced slopes, covered with vineyards, olives, and corn-fields. As I looked, a moving object in one of the fields riveted my attention. "Haste! give me the glass," I said. I turned it towards the spot. Yes, I was right ;—a plough and yoke of oxen were there at work. Jeremiah's prophecy was being fulfilled before my eyes : "*Zion shall be ploughed like a field.*"¹²

Along the farther side of Zion runs the deep glen of Hin-nom, which, turning eastward, sweeps round the southern end of the hill and joins the Kidron at En-rogel. These two ravines form the great physical boundaries and barriers of Jerusalem ; they completely cut it off from the surrounding table-land ; and they isolate the hills on which it stands, and those other hills, too, or hill-tops, which, as the Psalmist tells us, "are round about Jerusalem."¹³ These natural barriers also serve to confine the city within regular and definite limits—to prevent it from sending forth straggling suburbs and offshoots, as most other cities do ; hence it was said, "Jerusalem is builded as a city *that is compact together.*"¹⁴

A high battlemented wall encompasses the modern city. It runs for half a mile along the brow of the Kidron valley, facing Olivet, then turns at right angles and zigzags across Moriah, the Tyropean, and Zion, to the brow of Hinnom. The whole circuit is two miles and a half. The city was always fortified, and the walls and towers formed its most prominent features. Hence the language of the exulting Psalmist : "Walk about Zion, and go round about her : tell the towers thereof, mark ye well her bulwarks."¹⁵

Jerusalem has no suburbs. There is no shading off of the city into the country—no long streets radiating from a centre, then straggling houses, and villas, and gardens, such as we are accustomed to see in English towns. The moment you pass the gates of Jerusalem you are in the country,—a country open, bare, without a single house, and almost desolate. Not a green spot is visible, and not a tree, save here and there a little clump of gnarled, dusky olives. Rounded hill-tops, and long reaches of plain, strown with heaps of gray limestone, extend from the walls far away to the north and to the south. There is no grandeur, beauty, or richness in the scenery. It is bleak and featureless.

Hence the sad disappointment felt by most travellers on approaching Jerusalem from the west and the south. They can only see the 'serrated line of gray Saracenic walls¹⁶ extending across a section of a bleak, rocky plateau. But when I stood that morning on the brow of Olivet, and looked down on the city, crowning those 'battlemented heights, encircled by those deep and dark ravines, and when the rising sun bathed in a flood of ruddy light the terraced roofs of the city, I 'involuntarily exclaimed,—"*Beautiful for situation, the joy of the whole earth, is Mount Zion, the city of the great King!*"¹⁷

J. L. PORTER.

accus'tomed, used
bat'tlemented, fortified.
confused', irregular.
daz'zling, overpowering.
des'olate, deserted
diver'sified, varied.
encaus'tic, enamelled.
encom'passed, surround'ed
exult'ing, triumphant.

famil'iar, well known.
interspersed', mix'ed.
involuntarily, sponta'neously.
octag'on'al, eight-sided.
opportun'e, conven'ient.
precip'itously, steeply.
prom'inent, out'standing.
ra'diating, diverg'ing.

riv'eted, enchained'.
ser'rated, notched.
strag'gling, scat'tered.
topog'raphy, position of places.
un'dulating, rising and falling; irreg'ular.
unique, unmatched'.
ven'erated, revered'.

¹ Olivet, or the *Mount of Olives*, a ridge running north and south on the eastern side of Jerusalem. It is the hill on the right of the picture on page 197. The central summit rises two hundred feet above Jerusalem, and affords the finest view of the city and its surroundings.

² Kid'ron, the valley and stream separating Olivet from Jerusalem.

³ Plateau' (*plā-toe'*), table-land.

⁴ Mount Mori'ah, the hill on which the Temple stood.

⁵ Cyclope'an, gigantic; *lit.* like the *Cyclopes*, a fabulous race of one-eyed giants, said to have lived in Sicily, and to have been the workmen of Vulcan, the god of fire and furnaces.

⁶ Mos'lem, a Mussulman or Moham'medan.

⁷ Mec'ca, in Arabia, the birth-place of Mohammed. It attracts pilgrims in thousands every year, from all parts of the Mohammedan world.

⁸ Mosque of Omar.—A mosque is a Mohammedan place of worship; and the Mosque of Omar, built on the site of Solomon's Temple, is by far the most magnificent building in modern Jerusalem. It was built to commemorate the capture of Jerusalem by the Saracens under the Caliph Omar in 637 A.D. The date generally assigned for its completion is 687 A.D.

⁹ Tyrope'an Valley, between Mounts

Moriah and Zion; called also, in its lower part, the *Valley of Cheesemongers*. This is only a translation of the other name, which is derived from Greek *tyros*, cheese, or a cheese-market.

¹⁰ Arménian Con'vent; a convent of the Armenian Church (from Armenia, a province of Asia Minor, south of the Caucasus), which professes a form of Christianity resembling that of the Greek Church. It is governed by patriarchs.

¹¹ Castle of David.—So it is commonly called; but it is supposed by many to be the great tower of Hippicus mentioned by Josephus as the point from which the Jews made an unsuccessful sally upon the Romans, during the siege before the destruction of the city, A.D. 70. It is situated at the Jaffa gate, on the north-western corner of Mount Zion.

¹² Zion, &c.—See *Jeremiah*, xxvi. 18, where the prophecy is assigned to Micah. Compare *Micah*, iii. 12.

¹³ Round about Jerusalem.—See *Psalms* cxv. 2.

¹⁴ Compact together.—See *Psalms* cxlii. 3.

¹⁵ Her bulwarks.—See *Psalms* xlviii. 13.

¹⁶ Saracen'ic walls.—The modern wall of Jerusalem was built by the Saracens in 1542.

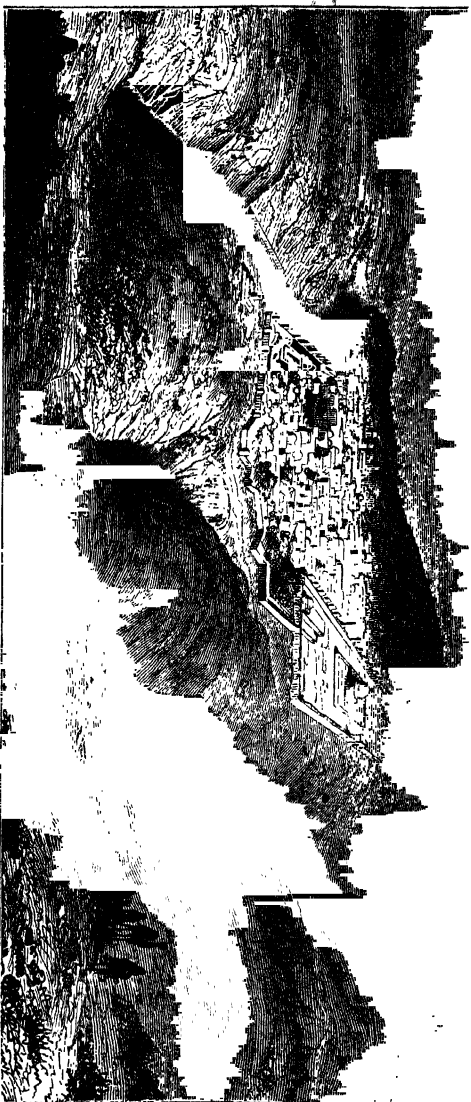
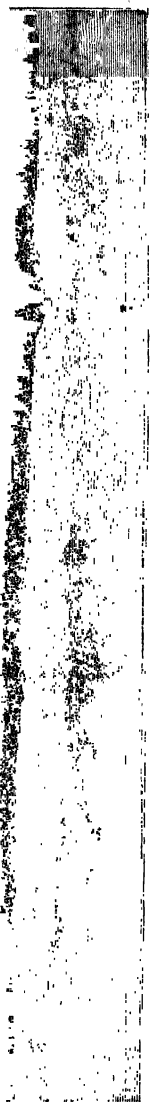
¹⁷ Beautiful for situation.—See *Psalms* xlviii. 2.

Hinnom. Hippicus.

Moriah.

Kiryat.

Olivet.



Zion.

Tyrean Valley.

JERUSALEM AND THE SURROUNDING COUNTRY.

QUESTIONS.—What is the best point for obtaining a general view of Jerusalem? Where is Mount Olivet? At what time did the writer ascend the tower on that mount? What glen lay at his feet? What Mount, on the other side of Kidron? Why is the platform on Moriah so deeply interesting? What great building stands upon it now? What valley separates Moriah from Zion? What divides Zion into two sections? Where is David's tomb? How is its position marked? What valley runs on the farther side of Zion? What effect have the valleys of Hinnom and Kidron on Jerusalem? Why are most travellers disappointed with the first view of Jerusalem?

THE SIEGE OF JERUSALEM.*

A.D. 70.

THE aspect of Jerusalem had changed but little from that which it had worn at the time of the Crucifixion, when, thirty-five years later, the Roman eagles gathered round their prey. But during these years the Jews had been plunging deeper and deeper into sin and wretchedness. At last, goaded by outrage and insult, they had risen against their Roman masters; and the great Vespasian^(b) had been sent by Nero^(b) to tame their stubborn pride.

Galilee and Perea¹ were subdued after some trouble and delay; and the conqueror, having drawn a circle of forts round Jerusalem, was at Cæsarea, preparing for the last great blow, when he heard the news of Nero's death. The army in Palestine then proclaimed Vespasian emperor. He hastened to secure Alexandria, the second city in the empire; and having heard while there that the people of Rome were holding feasts in his own honour, he set out for Italy. So the siege of Jerusalem was left to his son Titus.^(b)

Mustering his forces at Cæsarea, and dividing them into three bands, Titus marched for the doomed city. Arrived there, he fortified three camps—one on the north, one on the west, and one, garrisoned by the Tenth Legion, on the Mount of Olives. Upon this last the Jews made a sally as the soldiers were digging the trenches; but they were soon beaten down the hill.

While the trumpets were blowing at Cæsarea, and the clang of the Roman march was shaking the land, murder, and outrage, and cruel terror filled all Jerusalem. Robbers, calling themselves Zealots, had flocked in from the country. Eleazar, at the head of one set of these, held the inner court of the Temple. John of Gischala, another leader of ruffians, occupying ground somewhat lower, poured constant showers of darts and stones into the holy house, often killing worshippers as they stood at

* From *Great Events of History*. By Dr. Collier. T. Nelson and Sons.

the very altar. In this mad war, houses full of corn were burned, and misery of every kind was inflicted on the wretched people. In despair they called Simon of Gerasa to their aid, and thus there were three hostile factions within the walls.

The great feast of the Passover came, and the Temple was thrown open to the thousands who crowded from every corner of the land to offer up their yearly sacrifice. Mingling in disguise with the throng, with weapons under their clothes, John's party gained entrance into the sacred court, and soon drove out their foes. The poor worshippers, all trampled and bleeding, escaped as best they could. John remained master of the Temple; and the three factions were reduced to two.

Within the city there were above 23,000 fighting men—a strong body if united. There was, indeed, a temporary union, when they saw the Roman soldiers busily cutting down all the trees in the suburbs, rolling their trunks together, and to the top of the three great banks thus formed dragging the huge siege-engines of the time—rams, catapults, and balistas.²

The siege opened in three places at once, towards the end of March, 70 A.D. The Roman missiles poured like hail upon the city; but none were so terrible as the stones, sometimes weighing a talent (125 pounds), which were cast from the east by the Tenth Legion. The Jews replied with some engines planted on the wall by Simon, flung torches at the Roman banks, and made an unavailing sally at the Tower of Hippicus.³

Three towers of heavy timber, covered with thick iron plates, were then erected by Titus. Rising higher than the walls, and carrying light engines, they were used to drive the Jews from their posts of defence. The falling of one of these at midnight with a loud crash spread alarm through the Roman camp; but it did not last long. At dawn the rams were swinging away, and pounding against the shaking wall, which on the fifteenth day of the siege yielded to Nico (the Conqueror), as the most ponderous of the Roman engines was called by the Jews. The legions, pouring through the breach, gained the first wall: nine days later, the second wall was levelled with the ground.

Then followed a pause of five days, after which the attack was renewed at John's Monument, and the Tower of Antonia.⁴ At the same time, Josephus,^(b) a noble Jew, from whose graphic history this sketch is drawn, went to the walls, as he had done before—as he did more than once again, to plead with his countrymen. But all in vain, for the Zealots were bent on holding out, and slew such of the people as they found trying to desert.

Famine had long before begun its deadly work. Mothers were already snatching the morsels from their children's lips. The robbers broke open every shut door in search of food, and tortured most horribly all who were thought to have a hidden store. Gaunt men, who had crept beyond the walls by night to gather a few wild herbs, were often robbed by these wretches of the handful of green leaves for which they had risked their lives. Yet, in spite of this, the starving people went out into the valleys in such numbers that the Romans caught them at the rate of five hundred a day, and crucified them before the walls, until there was no wood left to make another cross.

His serious losses made Titus resolve to hem in the city with a wall. It was built in the amazingly short time of three days! The attack was then directed against the Tower of Antonia, which stood at the north-west corner of the Temple, on a slippery rock, fifty cubits high. Four banks were raised. Some Roman soldiers, creeping in with their shields above their heads, loosened four of the foundation stones; and the wall, battered at all day, fell suddenly in the night.

But there was another wall inside. One Sabi'nus, a little dark Syrian soldier, led a forlorn hope of eleven men up to this in broad noon-day, gained the top, and put the Jews to flight; but tripping over a stone he was killed, as were three of his band. A night or two after, sixteen Romans stole up the wall, slew the guards, and blew a startling trumpet blast. The Jews fled. Titus and his men, swarming up the ruined wall, dashed at the entrance of the Temple. After ten hours' fighting, the Jews drove the Romans out of the Temple, but not from the Tower of Antonia.

After the Roman wall was built, the famine and the plague grew worse. Young men dropt dead in the streets. Piles of decaying corpses filled the lanes, and were thrown by thousands over the walls. No herbs were to be got now. Men, in the rage of hunger, gnawed their shoes, the leather of their shields, and even old wisps of hay. Robbers, with wolfish eyes, ransacked every dwelling, and, when one day they came clamouring for food to the house of the daughter of Eleazar, she set before them the roasted flesh of her own infant son! Brutal and rabid though they were, they fled from the house of that wretched mother.

At last the daily sacrifice ceased to be offered, and the war closed round the Temple. The cloisters were soon burned. Six days' battering had no effect on the great gates; fire alone could

clear a path for the eagles. A day was fixed for the grand assault ; but on the evening before, the Romans having 'penetrated as far as the Holy House, a soldier, climbing on the shoulders of another, put a blazing torch to one of the golden windows of the north side. The building was soon a sheet of leaping flames ; and Titus, who had always desired to save the Temple, came running from his tent, but the din of war and the crackling flames prevented his voice from being heard.

On over the smoking cloisters trampled the legions, fierce for plunder. The Jews sank in heaps of dead and dying around the altar, which dripped with their blood. More fire was thrown upon the hinges of the gate ; and then no human word or hand could save the house, where God himself had loved to dwell. Never did the stars of night look down on a more 'piteous scene. Sky and hill and town and valley were all reddened with one fearful hue. The roar of flames, the shouts of Romans, the shrieks of wounded Zealots, rose wild into the scorching air, and echoed among the mountains all around. But sadder far was the wail of broken hearts which burst from the streets below, when marble wall and roof of gold came crashing down, and the Temple was no more. Then, and only then, did the Jews let go the trust which had all along sustained them, that God would deliver his ancient people, smiting the Romans with some sudden blow.

The Upper City then became a last refuge for the 'despairing remnant of the garrison. Simon and John were there ; but the arrogant tyrants were broken down to trembling cowards. And when, after eighteen days' work, banks were raised, and the terrible ram began to sound anew on the ramparts, the panic-struck Jews fled like hunted foxes to hide in the caves of the hill. The eagles flew victorious to the summit of the 'citadel, while Jewish blood ran so deep down Zion that burning houses were quenched in the red stream !

The siege lasted 134 days, during which 1,100,000 Jews perished, and 97,000 were taken captive. Some were kept to grace the Roman triumph ;⁵ some were sent to toil in the mines of Egypt ; some fought in provincial theatres with 'gladiators and wild beasts ; those under seventeen were sold as slaves. John was imprisoned for life ; Simon, after being led in triumph, was slain at Rome.

It was a gay holiday, when the emperor and his son, crowned with laurel and clad in purple, passed in triumph through the crowded streets of Rome. Of the many rich spoils adorning the 'pageant none were gazed on with more curious eyes than



BAS-RELIEF ON THE ARCH OF TITUS—(From a Photograph).

the golden table, the candlestick⁶ with seven branching lamps, and the holy book of the Law, rescued from the flames of the

Temple. It was the last page of a tragic story. The Jews—homeless ever since, yet always preserving an 'indestructible' nationality—were scattered among the cities of Earth, to be the Shylocks of a day that is gone by, and the Rothschilds of our own happier age.

W. F. COLLIER.

amāz'ingly, won'derfully.	indestruc'tible, imper'ish-	pit'eous, mel'ancholy.
cit'adel, fort'ress.	inflict'ed, vis'ited. [able.	plague, disease'.
clam'ouring, shout'ing.	lev'elled, razed.	pon'derous, heavy.
despair'ing, losing hope.	loos'ened, detached'.	ransacked, plundered.
disguise', false dress.	mis'siles, projec'tiles.	siege, invest'ment.
en'gines, machines'.	national'ity, u'nity as a	tem'porary, for a time.
founda'tion, base'ment.	peo'ple.	unavailing, fruit'less.
gar'risoned, occ'upied.	pa'geant, spec'tacle.	weigh'ing, in weight.
glad'iators, sword-fighters.	pen'etrated, made way.	wretch'edness, mis'ery.

¹ Pere'a, a district on the east of the Jordan, extending from the lake of Gennesaret in the north to the river Arnon in the south.

² Rams, catapults, and balistas.—These were the chief military engines used by the Romans. The *ram* was used to destroy the lower part of the wall. It consisted of a large beam, the trunk of a fir or an ash tree, with a mass of bronze or iron, resembling the head of a ram, fastened to one end. At first the ram was borne in men's hands; but in its more perfect form it was swung by chains from a transverse beam, and covered with a wooden roof. The *balista* was used to shoot stones against the battlements. Sometimes the balista threw its missiles to a distance of a quarter of a mile. The more powerful sorts are said to have thrown stones weighing three hundredweight. The *catapult* was used to shoot darts at any of the besieged that showed themselves on the walls. In form, the *catapult* was long, the *balista* nearly square.

³ Tower of Hip'picus.—Believed to be the same as the Castle of David, at the north-western corner of Mount Zion. (See p. 196, Note 11.)

⁴ Tower of Anto'nia, the citadel of Jerusalem, stood at the north-western angle of Mount Moriah. It communicated with the cloisters of the Temple by secret passages. Herod called it *Antonia* in honour of Mark Antony.

⁵ To grace the Roman triumph.—Seven hundred of the tallest and handsomest of the captive Jews marched in Titus's triumphal procession, with ropes around their necks.

⁶ The golden table, the candlestick, &c.—As a permanent memorial of his victories, a triumphal arch, the most elegant in Rome, was dedicated to Titus, and completed shortly after his death. The sculpture carved on one side of the archway, under the arch, represents that part of the procession in which Roman soldiers carried on high the spoils from the Temple of Jerusalem. There may still be distinctly recognised the golden candlestick which stood in the Temple in the time of Christ. The original candlestick used in the Tabernacle, and afterwards transferred to Solomon's Temple, had been carried off by the Chaldeans in 588 B.C. When the Temple was rebuilt, seventy years later, a new candlestick was made, which corresponded exactly with the original one, as described in *Exodus* (xxv. 31–40). This candlestick was deposited in Vespasian's Temple of Peace at Rome, where it remained for nearly four hundred years. It was carried off to Carthage by Genserich and his Vandals, in 455 A.D. Belisarius carried it from Carthage to Constantinople, in 533. From Constantinople it was sent back to Jerusalem, and placed in a Christian church; but it disappeared thence, when or by whose hands has never been ascertained.

QUESTIONS.—Who was sent by Nero to subdue the rebellious Jews? Why did he leave Syria? To whom was the siege of Jerusalem left? How did he dispose his forces around the city? What different factions existed within the city? How were these reduced to two? When did the siege open? At how many points? How did

the Romans drive the Jews from the walls? When was the first wall gained? when the second? Who went to the walls to plead with his countrymen? What led many of the Jews to desert the city? What plan did Titus adopt to hem them in more effectually? Against what tower was the attack then directed? How was it gained? To what extremities did the famine drive the besieged? What brought the siege to a sudden crisis? What became a last refuge for the garrison? In how many days was it reduced? How long did the siege last? How many Jews perished? How many were taken captive? What spoils were displayed in the Roman triumph?

LEBANON.

LEBANON stands in some respects alone and unrivalled among the mountains of the world. A most impressive signal of approach to the Holy Land is the first glimpse, off the shores of Cyprus, of the ancient mountain rising from the eastern waters, its peaks wreathed with everlasting snows, and flushed with shifting hues of rose and purple in the clear evening sky. High up in its aerial solitude, pure and lustrous like a cloud steeped in sunshine, it stands for us as the emblem of that old oriental world which lies in its shadow;—Damascus,¹ buried in its depths of ever-blooming verdure; Antioch,² where the Orontes runs sparkling through its laurel groves to the sea; Baalbec,³ with its gray colossal relics—the Stonehenge⁴ of the desert; Tyre, disrowned and desolate, by the waters; and away in the south, the hills of Galilee with Jerusalem beyond, and the red peaks of the great and terrible wilderness which closes in this land of wonder.

From the time when the Jewish leader⁵ sighed to see “the good land beyond Jordan, that goodly mountain, even Lebanon,” through those later days when Hebrew seers and poets looked up to its vineyards and forests, its purple slopes and its burnished silver diadem, and drew from them eternal types of truth and beauty, what a boundless wealth of sacred tradition and imagery has been treasured up in the venerable name of Lebanon!

This name, which is now confined to the eastern mountain chain, “Lib’anus” properly so called, is used in a wider sense by the inspired writers, and includes the great parallel range of “Anti-Libanus,” which in Hermon, its loftiest summit, attains a height of ten thousand feet. This mountain, towering in its magnificent elevation over the plain, is “the tower of Lebanon which looketh toward Damascus.”

To the Jewish people, so proud of their national Temple and its associations with the golden age of their history, Lebanon,



BEIRUT AND MOUNTAINS OF LEBANON.

on this account alone, would be reverently endeared. From its quarries were hewn the massive blocks of stone which rose on Mori'ah without sound of axe or hammer; and many a giant tree had been felled by the Tyrian woodman in its forests to yield the precious wood so largely employed in the building. In the 'luxurious days of the later kings the mansions of the noble and the wealthy in Jerusalem were 'embellished with this costly wood—"ceiled with cedar, and painted with vermillion."

The height of this tree made it a symbol of pride; its stateliness and far-spreading branches, of extended empire: "The Assyrian was a cedar in Lebanon with fair branches, and with a shadowing shroud, and of an high stature; no tree in the garden of God was like unto him for beauty." With a deeper meaning, as an 'emblem of the spiritual progress of the believer, the psalmist says: "The righteous shall grow like a cedar in Lebanon."

The mountain region of Lebanon is a world in itself, peopled by ancient races, whose religious feuds have often carried 'devastation through its fairest valleys. The northern part of the range is occupied mainly by a Christian population, the Ma'ronites;⁶ the southern by the Drūs'es,⁷ a brave, high-spirited people, whose religion is a mystery, and seems to be a kind of Moham'medanism, 'tinctured with the wild 'fanaticism of the East.

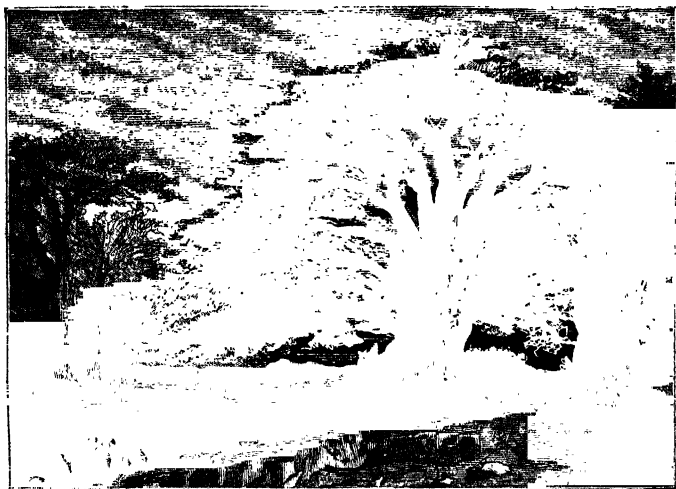
Situated on a lovely bay at the base of Lebanon is Bei'rout, suggesting to us what Tyre may have been like, in the days of its glory. The coast is dotted with villages, and the number of them scattered about the mountain is amazing. On approaching it from the sea, one is struck by the groups of white dwellings that gleam among the vineyards on its lower slopes, and higher up speckle the dark pine-groves,—'multitudes of little hamlets clinging to its sides, or hanging like swallows' nests from its rocky eaves. Everywhere, as one makes his way through the storm-gashed ravines of the mountain, where cataracts leap and torrents twist and foam, each sudden turn of the road brings into view new villages, dropped about here and there in green retreats, and 'slumbering in their orchards and mulberry groves like nooks of Paradise shut out from the world.

From the highest point, which perhaps one has gained on a journey from Damascus and Baalbec to the Cedar Forest,⁸ the prospect is one of 'surpassing grandeur. All at once the mountains sink and fall away to a giddy depth beneath—a maze of furrowed ridges, surging, like the waves of a frozen sea, through

a veil of warm blue vapour ; old castles and convents perched on islanded heights ; villages everywhere clustering on the terraced steeps ; at your feet the venerable Cedar Wood dwindled to a thicket of shrubs ; and away in the distance the hazy gleam of the Mediterranean waters. One is reminded of the paradise of that gorgeous dream of Coleridge :—

“ There were gardens bright with sinuous rills,
Where blossomed many an incense-bearing tree ;
And here were forests ancient as the hills,
Infolding sunny spots of greenery.”

It is not for the multitude of its cedars that Lebanon is now



THE CEDAR GROVE.

renowned ; but the spot where stand the last surviving relics of the forests that once clothed its sides will always be a haunt of pilgrimage. The wood contains about three hundred cedars, of which fifty trees, twisted by the storms and scarred by the tempests of centuries, may challenge special admiration. On a mound in the centre stands the patriarch of the grove, nine feet in diameter, spreading his ponderous arms, each a tree in itself, over the heads of the many generations that have grown up below.

Nowhere, perhaps, is the wonderful union of mountain

grandeur with beauty of site and richness of 'culture better seen than near the Christian village of Ehden,⁹ described in glowing terms by all who have visited it. It stands on the brink of a gorge nearly two thousand feet in depth, its houses of hewn stone scattered under the shade of walnut trees, every slope and terrace waving with cornfields and vineyards, and groves of mulberry and poplar. The chime of bells, so seldom heard in the East, awakens a peculiar 'emotion when ringing the hour of prayer in these Christian villages.

'Stability, 'fragrance, 'fruitfulness, types of the highest graces that beautify and exalt the life of man, dwell in pure and endless companionship beneath the cedars of Lebanon.

J. D. BURNS.

associa'tions, connec'tions.
bur'nished, polished.
colos'sal, huge.
cul'ture, cultiva'tion.
devasta'tion, ru'in.
dwin'dled, reduced'.
em'bellished, ornament'ed.
em'blem, to'ken.
emo'tion, feel'ing.

fanat'icism, relig'ious fren'-
fra'grance, aro'ma [zy.
fruit'fulness, produc'tive-
ness.
im'pres'sive, affect'ing.
includes', om'bra'ces.
lus'trous, bright.
luxu'rious, voluptuous.
magnif'icent, grand.

mul'titudes, crowds.
remind'ed, put in mind.
slum'bering, sleep'ing.
stabil'ity, stead'fastness.
surpass'ing, exces'sive.
surviv'ing, remain'ing.
tinctured, tinged.
unri'valled, peer'less.
wil'derness, des'ert.

¹ Damas'cus, the ancient capital of Syria, and probably the oldest city in the world. It has belonged successively to all the great conquering nations of the globe,—Assyrians, Persians, Greeks, Romans, Sara-

² An'tioch, formerly the capital of all Syria, and at one time the third city in the Roman Empire for wealth and refinement. It is situated on the river Orontes, 20 miles from its mouth. It has many times been nearly destroyed by earthquakes, and now its population is under 10,000.

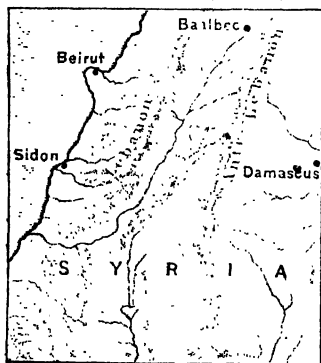
³ Baal'bec, an ancient city of Syria, in the valley between Lebanon and Anti-Lebanon. It was also called *Helio-polis*, both names having the same meaning,—City of the Sun. The origin of the city has been ascribed to Solomon. Among the ruins of its temples, there are found single blocks of stone over 60 feet long. One of these is 69 feet long, 17 broad, and 14 feet thick.

⁴ Stone'henge. (See lesson on *Cairo* and the *Pyramids*, p. 140; Note 3.)

⁵ The Jewish leader.—Moses, who led the Israelites through the wilderness, but was not allowed to cross the Jordan with them. (See *Deuteronomy*, iii. 25, 26.)

⁶ Ma'ronites; so called from their founder, Maron, who lived in the fifth century. They were reconciled to the Church of Rome in the twelfth century, and are still subject to it, but they hold their service in Syriac. They number about 200,000.

⁷ Drūs'es, Arabs, who came from the eastern confines of Syria, and settled in



cens, Tartars, and Turks. It is now the seat of a Turkish pashalic. The cloth called Damask is supposed to have originated there; and Damascus steel has never been surpassed.

Lebanon within the last nine hundred years. It is said that they were originally Egyptians, and that the sect was founded by one of the followers of Hâkim, an Egyptian prophet, who was expelled from Egypt for his heretical belief in Hâkim. They now number 100,000. In 1860 the Druses attacked the Maronites, and mas-

sacred great numbers of them. The Turks and the French interfered, and the Druses surrendered in January 1861, giving up their leaders.

⁸ The Cedar Forest, on the western slope of Lebanon, 25 miles inland from Botrys.

⁹ Eh'den, about five miles north-west of the Cedar Forest.

QUESTIONS.—What relics of the old oriental world lie in the shadow of Lebanon? What is the highest peak of Anti-Lebanon? and its height? Why would Lebanon be reverently endeared to the Jewish people? Of what was the cedar tree the symbol? Who dwell in the northern and the southern parts of the Lebanon region respectively? By what is one struck on approaching Lebanon from the sea? How many trees does the Cedar Forest now contain? Describe the patriarch of the grove. Where is the village of Ehden situated? For what is it remarkable?

MIDNIGHT ON THE BATTLE-FIELD.

A SOLILOQUY.

'Tis now the dead of night, and half the world
Is with a lonely, solemn darkness hung;
Yet I—so coy a dame is Sleep to me—
With all the weary courtship of
My 'care-tired thoughts, can't win her to my bed,
Though even the stars do wink, as 'twere with overwatching.
I'll forth and walk a while.—The air's 'refreshing,
And the ripe harvest of the new-mown hay
Gives it a sweet and 'wholesome odour.—
How awful is this gloom! And hark! from camp to camp
The hum of either army stilly sounds,¹
That the fixed sentinels almost receive
The secret whispers of each other's watch:.....
Steed threatens steed, in high and boastful 'neighings,
Piercing the Night's dull ear.—And from the tents,
The armourers accomplishing² the knights,
With clink of hammers closing 'rivets up,
Give dreadful note of preparation; while some,
Like sacrifices, by their fires of watch
Sit patiently, and 'inly 'ruminate
The morning's danger.—By you heaven, my stern
Impatience chides this tardy-gaited Night,
Which, like a foul and ugly witch, doth limp
So 'tediously away. I'll to my couch,
And once more try to sleep her into morning.

care-tired, care-worn.
in-ly, in'wardly.
neigh'ings, horse-cries.

pierc'ing, pen'etrating.
refresh'ing, reviv'ing.
riv'ets, metal pins.

ru'minate, brood over.
te'diously, tire'somely.
whole'some, health'ful.

¹ Stilly sounds—sounds in and because of the stillness.—That, in the next line, so that.

² Accomplishing, making completely ready; the literal meaning of the word, from Lat. *ad*, to; *compleo*, to fill up.

GREAT OCEAN ROUTES.

To be read before a Map of the World.

SOUTHAMPTON, which is the station of most of the great ocean mails, is a quaint old English sea-port at the head of Southampton Water in Hants. Two passages lead from Southampton Water to the English Channel—the Solent and the Spithead; and between them lies the Isle of Wight. A northern branch of the Spithead is Portsmouth Harbour, the principal station of the English Navy.

The great ocean routes which have their starting-point at Southampton are—the Mediterranean, the West Indian, the Cape, East Indian, Australian, and China routes.

The principal vessels that follow the **Mediterranean route** are those in connection with the overland route* to India. But by this route also communication is kept up with the whole of the Mediterranean coasts, and an extensive trade—chiefly in corn—is carried on between the Black Sea and the principal British ports.

The **Cape and East Indian** mail steamer, on leaving Southampton, makes direct for St. Vincent, one of the Cape Verd Islands, where there is a commodious harbour, a free port, and a coaling station. These islands are situated 320 miles west of Cape Verd, on the coast of Africa. They form a Portuguese possession. Cotton cloth and salt are their most valuable exports.

The next station on the Cape route is Ascension Island, 1800 miles south-east of St. Vincent. This small island, which is 8 miles long, by 6 broad at its western end, has belonged to England since 1815. At George Town, on its north-western coast, there is a fort with military quarters, surrounded by a few detached residences; and opposite the town there is an open roadstead. It is a convenient victualling station for the African squadron of the English Navy.

Eight hundred miles south-east of Ascension, the steamer reaches the interesting island of St. Helena, the scene of the captivity and death of Napoleon Buonaparte. The chief settlement in the island is James Town, on the north-western shore. The interior is an elevated table-land, 1500 feet above the sea-level. Near the centre of this plateau is Longwood, the residence of Napoleon from 1815 till 1821. He was buried on the

* See lesson on *The Overland Route*, p. 128.

island; but in 1840 his remains were removed to Paris. Indian steamers do not often call at St. Helena on the outward voyage, but it is a usual station in the homeward track.

After St. Helena, the steamer next stops at Cape Town; so called from the Cape of Good Hope, in the 'neighbourhood of which it stands. Cape Colony, of which Cape Town is the capital, became a British possession so lately as 1814. Prior to that time it belonged to Holland; and the town bears evident traces of its Dutch origin. It has canals in the principal streets; the houses are flat-roofed and painted or white-washed, with terraces and gardens in front. It is situated on the south-western shore of Table Bay, under the shadow of Table Mount.*

From Cape Town the steamer proceeds to Mauritius, a considerable island (36 miles long by 20 broad) in the Indian Ocean.* The Dutch called the island Mauritius, after Prince Maurice their Stadtholder, when they settled there in 1598. Abandoned by the Dutch in 1715, the French took possession of it, and called it the Isle of France. In 1810 it was taken by the British, and its possession was confirmed to them in 1814; but the 'companion island of Bourbon, which had been taken at the same time, was restored to the French. Port Louis, the capital of Mauritius, is a place of growing prosperity. It has nearly 80,000 inhabitants, and it is now in direct communication, not only with India, but with Aden and Australia.

The next station on the direct route is Point de Galle, a seaport at the southern extremity of the island of Ceylon. Here the Cape and Overland routes meet, as the steamers from Aden and Bombay also touch at Point de Galle. This port forms a kind of mail dépôt for the whole of the East, as branch mails proceed thence to Madras, Calcutta, Penang, Singapore, Australia, New Zealand, and Hong-Kong.

Ships returning to England from Australia generally prefer the Pacific and Cape Horn route to that by the Cape of Good Hope and the Atlantic. By this means vessels are able, both in going and returning, to take advantage of the westerly winds and currents which prevail in the neighbourhood of both of these stormy Capes.

After doubling Cape Horn, the homeward-bound ship makes for the Falkland Islands, which form a convenient British outpost in the southern seas. This group, consisting of two large and a host of small islands, is situated about 300 miles from the

* See lesson on *The Discovery of the Sea Route to India*, p. 248.

coast of Patagonia. The western of the two large islands is 90 miles, the eastern is 100 miles in length. Their population is sparse; but vegetation is 'luxuriant, and cattle 'abundant. Vessels frequenting these seas call at the Falkland Islands to procure provisions and fresh water. The direct route from the Falkland Islands to Southampton is by the Cape Verd Islands, where the homeward and outward routes meet. A vessel that has sailed from St. Vincent to Melbourne by the Cape of Good Hope, and has returned to St. Vincent by Cape Horn, has 'obviously sailed round the world.

The **West Indian** mail is carried direct from Southampton to St. Thomas, a small island belonging to Denmark, in the group called the Virgin Islands. The capital of St. Thomas is a free port, and one of the best trading places in the West Indies. It is built in the form of an 'amphitheatre around a 'spacious bay; hence its selection as a great mail station, and as the chief 'magazine and market for West Indian produce.

From St. Thomas the mail steamer proceeds to Kingston in Jamaica, which has also a fine harbour, 'available for the largest ships. Another route to Kingston is by the Bermudas, a group of nearly four hundred islands, about 600 miles from the coast of the United States. These islands—the "still vexed Bermoothes"¹ of Shakespeare—are of great value to Britain as a naval station, one of them containing a land-locked harbour, which has few equals in the world. The port referred to is also used as an 'arsenal and as a 'convict settlement; and it is the centre of important transit trade between the West Indies and the mainland of North America. There is regular stean communication from Bermuda to Halifax, New York, and St. Thomas.

From Kingston the mail route is continued to Navy Bay, on the eastern side of the Isthmus of Darien. Thence it proceeds by rail across the isthmus of Panama²—a distance of 49 miles. Panama has thus been raised to a position of great importance among Pacific sea-ports. It is now the station for the mails between Great Britain and Peru and Chili. Steamers also ply between Panama and San Francisco in California.

The **South American and Pacific** route, starting from Liverpool, proceeds by way of Bordeaux, and calls at Lisbon, the capital of Portugal, which stands in the relation of parent state to the modern Brazilian Empire.³ From Lisbon the route proceeds in a south-westerly direction for upwards of 600 miles to the 'mountainous island of Madeira, which gives its name to a famous wine made from the grapes grown on the island.

Madeira is also a favourite resort of 'consumptive patients during the winter and spring months.

Madeira is a Portuguese island. The Canaries, those next visited, belong to Spain, and form a station at which all ships sailing between Spain and the East or West Indies regularly call. Conspicuous among them by its lofty snow-capped peak



TENERIFFE.

is Teneriffe, an extinct, or, at least, 'quiescent' volcano, which rises 12,182 feet above the ocean.*

The Cape Verd Islands, already referred to in connection with the East Indian route, mark the next stage in the voyage. The steamer then crosses the Atlantic in a south-westerly direction, and makes no further pause till it reaches either Pernambuco or Bahia (for they are visited alternately by successive mails) on the north-eastern coast of Brazil. Thence it proceeds to Rio de Janeiro, the capital of the country, and the most im-

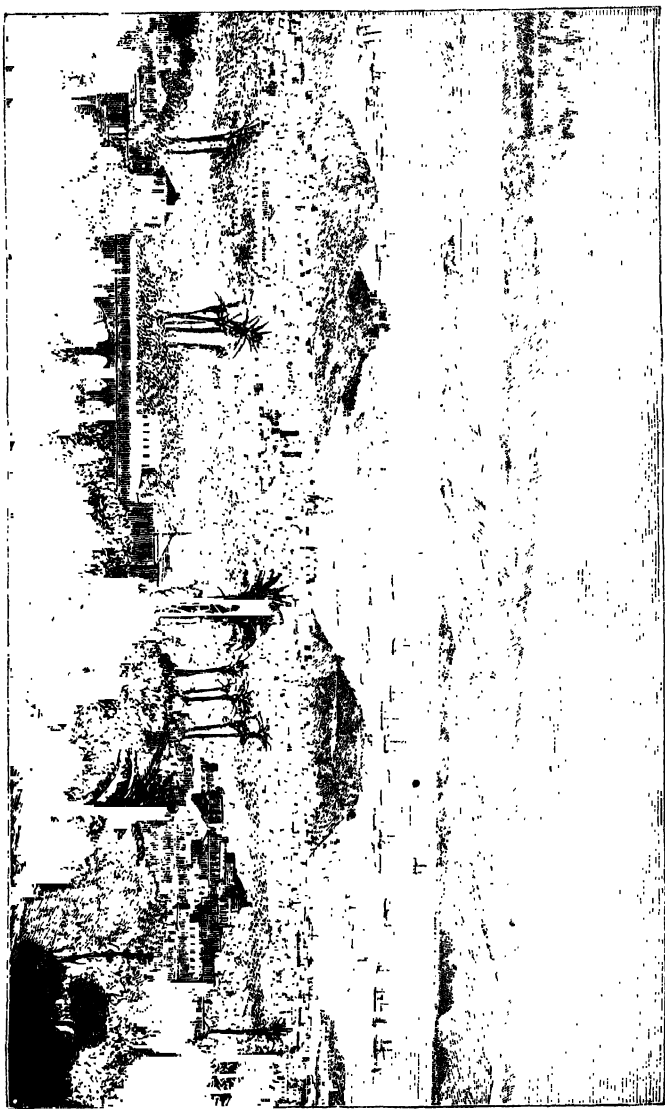
* See lesson *Above the Clouds*, in ROYAL READER No. V.

portant 'commercial city in South America. Rio, to which 'alternate' steamers sail direct from Lisbon, is situated on the western shore of a vast bay or inlet, 17 miles in length, and 11 in extreme width, which is studded with islands, and forms one of the noblest harbours in the world. This harbour communicates with the Atlantic by a deep and narrow passage between two granite mountains. The entrance is so safe as to render the services of local pilots entirely 'unnecessary. Yet so commanding is the position of the fortresses at the mouth of the harbour, on its islands, and on the surrounding heights, that the ingress of a hostile fleet would be a work of the utmost difficulty.

From either side of that 'contracted entrance stretch away, as far as the eye can reach, lofty mountains, whose pointed summits and 'fantastic shapes recall the glories of Alpland. On the left, the Sugar-Loaf Mountain stands like a giant sentinel over the 'metropolis of Brazil. On the right another lofty range commences near the principal fortress, which commands the entrance of the bay, and, forming curtain-like ramparts, reaches away in 'picturesque headlands to the bold 'promontory well known to all South Atlantic navigators as Cape Frio. Far through the opening of the bay, and in some places towering even above the lofty coast-barrier, can be discovered the blue outline of the distant Organ Mountains, whose lofty 'pinnacles will at once suggest the origin of their name.

As far up the bay as the eye can reach, lovely little islands, 'verdant and palm-clad, may be seen rising out of its dark bosom; while the hills and lofty mountains which surround it on all sides, when gilded by the rays of the setting sun, form a fitting frame for such a picture. At night the lights of the city have a fine effect; and when the land-breeze begins to blow, the rich odour of the orange and other 'perfumed flowers is borne seaward along with it.

The aspect which Rio de Janeiro presents to the beholder bears no 'resemblance to the compact brick walls, the dingy roofs, the tall 'chimneys, and the generally level sites of Northern cities. Its surface is diversified by hills of irregular but picturesque shape, which shoot up in different directions, leaving between them flat 'intervals of greater or less extent. Along the bases of these hills, and up their sides, stand rows of buildings, whose whitened walls and red-tiled roofs are in happy contrast with the deep green foliage that always surrounds and often embowers them.



RIO DE JANEIRO.

From Rio, the steamer continues its course to Monte Video, the capital of Uruguay, situated at the mouth of the La Plata. Monte Video has an excellent harbour, around which the city, consisting of low, flat-roofed houses, is built in 'crescent form. On the opposite side of the La Plata, farther up the 'estuary, is Buenos Ayres,⁴ the capital of the Argentine Confederation, of which, till lately, Uruguay was a member. The harbour of Buenos Ayres does not admit large vessels. The navigation of the La Plata, moreover, is rendered difficult by its numerous rocks and sand-banks, and it is especially dangerous during the 'prevalence of the tempestuous south-west winds called pamperos, or pampas-winds.

The Buenos Ayres mails and passengers are therefore left at Monte Video, and the steamer proceeds southward; and passing through the Strait of Magellan,⁵ or weathering Cape Horn,⁶ makes for Valparaiso, the chief port of Chili. Four hundred miles westward, in the midst of the Pacific, is the island of Juan Fernandez, Alexander Selkirk's solitary residence on which for four years suggested to De Foe his well-known story, "Robinson Crusoe." From Valparaiso, the steamer proceeds to Callao, the port of Lima, which is six miles inland, and with which it is connected by rail. Lima, the city founded by Pizarro⁷ to be the Spanish capital of his conquests, has the reputation of being the handsomest city in South America—its cathedral and numerous churches, with their domes and spires, giving it a 'magnificent appearance. We have now crossed the line of the West Indian and Panama route already described, of which the traveller may, for variety's sake, avail himself on his homeward journey.

abun'dant, plen'tiful.
amphithe'atre, cir'cular
space.
ar'senal, store of war mate-
rial.
avail'able, suit'able.
captiv'ity, impris'onment.
chimneys, smoke vents.
comm'er'cial, mer'cantile.
commo'dious, roomy.
communica'tion, inter-
course.
companion, accom'pany-
ing.
consump'tive, afflicted with
disease of the lungs.
contract'ed, nar'row.
conve'nient, advant'ageous.

con'vict, crim'inal.
cres'cent, semicir'cular.
detached', standing alone.
el'e'vated, raised.
es'tuary, river-mouth.
exten'sive, large.
extrem'ity, termina'tion.
fantas'tic, fan'ciful.
har'bour, haven; port.
in'tervals, spaces.
luxu'riant, rich; co'pious.
magazine', store-house
magnif'icent, grand.
metrop'olis, chief city.
moun'tainous, rocky.
neigh'bourhood, vicini'ty.
ob'viously, ev'idently.
perfumed', scented.

picturesque', strik'ing.
pin'nacles, pointed sum-
mits.
pla'teau, table-land.
prev'alence, contin'uance.
prom'on'tory, head'land.
quies'cent, dor'mant.
resem'blance, like'ness.
res'idences, dwell'ing-
houses.
road'stead, an'chorage.
spa'cious, wide.
squad'ron, division.
ter'races, raised plat'forms.
unnec'essary, need'less
ver'dant, green.
volca'no, burning moun-
tain.

¹ "Still vexed Bermoothes."—The ever-stormy Bermudas. See *The Tempest*, Act I., Scene 2. Shakespeare is supposed to have taken his idea from an account of the shipwreck of Sir George Sommers on the Bermudas in 1609.

² Rail across the isthmus of Panama'.—This railway was opened in 1855. It had been previously proposed to cut a ship canal through the isthmus; and in 1850 a treaty was ratified between England and America, declaring that neither country should ever assume exclusive control over the canal, or erect any fortification in Central America. But the project has not yet taken practical shape. A canal has also been projected across the isthmus of Tehuantepec, on the south of Yucatan.

³ Brazilian Empire.—On the outbreak of the Peninsular War, the royal family of Portugal fled to Brazil, which had been a Portuguese dependency since the sixteenth century. They formed it into a tributary kingdom in 1815, and into an independent

empire in 1822. (See OUTLINES OF HISTORY, Nelsons' School Series.)

⁴ Buenos Ayres (*Bónus Ariz*; but the Spanish pronunciation is *Buenos Aires*), seceded from the Argentine Confederation in 1853; but they were reunited in 1862. *Argentine* means pertaining to silver (from Lat. *argentum*, silver). This and the name *La Plata* (plate), given first to the country, and afterwards to the estuary, were suggested by the silver and gold which the Spanish discoverers received from the natives. They supposed, but erroneously, that they were the produce of the country.

⁵ Strait of Magellan.—This strait was first passed through by Magellan (Fernando de Magalhães), a Portuguese navigator, in 1521. He gave the Pacific Ocean its name on account of its calmness when he first entered it.

⁶ Weathering Cape Horn.—See ROYAL READER NO. V.

⁷ Pizarro.—The Spaniard who conquered Peru in 1532.

QUESTIONS.—Where is Southampton? How does it communicate with the English Channel? Where is Portsmouth Harbour? What ocean routes start from Southampton? What is the most important branch of the Mediterranean route? For what other purposes is it employed?

At which of the Cape Verd Islands does the East Indian mail call? How far are these islands from the African coast? To whom do they belong? Which is the next station on the Cape route? To whom does it belong? What town is on it? As what is it convenient? How far is St. Helena from Ascension? What is the chief interest attaching to it? What was Napoleon's residence? Where is it situated? What is the next place visited after St. Helena? Why is it so called? When did Cape Colony become a British possession? What does it bear traces of? What island is next visited? After whom was it named? From whom did Britain take it? When? What is its capital? What is the next station? Where is Point de Galle? What routes there meet? What branch mails proceed thence? What route do ships returning from Australia prefer? Why? What islands lie in the ship's course after doubling Cape Horn? What is abundant on these islands? For what do ships visit them? Where do the homeward and outward routes meet? What has then been accomplished?

Where does the West Indian mail sail from Southampton? Why has that port been selected as a mail station? To whom does the island belong? Where does the steamer go from St. Thomas? What other route is there to Kingston? What does Shakespeare call these islands? Why are they so valuable to Britain? Where does the mail route proceed after Kingston? And from Navy Bay? What is the distance to Panama? When was the railway opened? What has been its effect on Panama?

Where does the South American mail start from? What places in Europe does it call at? What islands lie in its course between Portugal and Brazil? For what is Madeira famous? To whom do the Canaries belong? Which is the most conspicuous of them? What are the towns first visited on the Brazilian coast? What is the capital of Brazil? How is it situated? Where does the steamer go after leaving Rio? What towns on the Pacific coast are visited? What island is west from Valparaiso? For what is it interesting? What is the port of Lima? Who founded Lima? What reputation does it possess? By what other route may the traveller return to England?

SIR JOHN FRANKLIN.¹

THE Polar clouds uplift—
 A moment and no more—
 And through the snowy drift
 We see them on the shore;
 A band of 'gallant hearts,'²
 Well-ordered, calm, and brave,
 Braced for their closing parts,—
 Their long march to the grave.
 Through the snow's 'dazzling blink,
 Into the dark they've gone:—
 No pause: the weaker sink,
 The strong can but strive on,
 Till all the 'dreary way
 Is dotted with their dead,'³
 And the shy foxes play
 About each sleeping head.
 Unharm'd the wild deer run,
 To graze along the strand,
 Nor dread the loaded gun⁴
 Beside each sleeping hand.
 The 'remnant that survive
 Onward like drunkards reel,
 Scarce wotting⁵ if alive,
 But for the pangs they feel.
 The river of their hope⁶
 At length is drawing nigh—
 Their snow-blind way they grope,
 And reach its banks—to die!
 Thank God, brave Franklin's place
 Was empty in that band!
 He closed his well-run race
 Not on the iron strand.
 Not under snow-clouds white,
 By cutting frost-wind driven,
 Did his true spirit fight
 Its 'shuddering way to Heaven;
 But warm, aboard his ship,
 With 'comforts at his side
 And hope upon his lip,
 The gallant Franklin died.
 His heart ne'er ached⁷ to see
 His much-loved sailors ta'en;
 His sailors' pangs were free
 From their loved captain's pain.

But though in death apart,
 They are together now ;—
 Calm, each 'enduring heart,—
 Bright, each 'devoted brow !

Punch.

com'forts, lux'uries.
 daz'zling, bewil'dering.
 devôt'ed, doomed.

drear'y, gloomy.
 endur'ing, pa'tient.
 gal'lant, coura'geous.

rem'nant, res'idue.
 shud'dering, trem'bling.
 survive, continue to live.

¹ Sir John Franklin, the Arctic explorer, and the true discoverer of the North-West Passage, was born in Lincolnshire in 1786. He set out on his third and last expedition in 1845, and the fate of the brave band was unknown till 1857, when the relics of the expedition were found by Captain M'Clintock. From these it appeared that Franklin had died on board his ship in 1847, and that the survivors abandoned their ships in 1848, intending to proceed overland to the Great Fish River. It was concluded that they had all perished in the snow. In the Franklin search-expeditions, about twenty vessels and more than a thousand men were at sundry times engaged.

² A band of gallant hearts.—The survivors of the crews of Franklin's two ships—the *Erebus* and the *Terror*—then num-

bering 105, prepared to take their "long march" overland.

³ Dotted with their dead.—The route they had taken so far was dotted with the skeletons of those who had died, and with their cast-off implements.

⁴ The loaded gun.—Loaded guns were in some cases found lying beside the skeletons.

⁵ Wotting, knowing. [Old Eng. *witan*, to know ; present, *I wot* ; past, *I wist*.]

⁶ The river of their hope.—The Great Fish River, towards which they were making.

⁷ His heart ne'er ached . . . pain.—The meaning is, Franklin was mercifully spared the agony of witnessing the hardships his men had to undergo ; and they were spared the pain of seeing him share those hardships.

THE LLANOS OF SOUTH AMERICA.

In South America the features of Nature are traced on a gigantic scale. Mountains, forests, rivers, plains, there appear in far more colossal dimensions than in our part of the world. Many a branch of the Amazon surpasses the Danube in size. In the boundless primitive forests of Guian'a more than one Great Britain could find room. The Alps would seem but of moderate elevation if placed beside the towering Andes ; and the plains of Northern Germany and Holland are utterly insignificant when compared with the *lla'nos*¹ of Venezu'éla and New Grana'da, which cover a surface of more than 250,000 square miles.

Nothing can be more remarkable than the contrast which these 'immeasurable plains present at various seasons of the year—now parched by a long-continued drought, and now covered with the most luxuriant vegetation. When, day after day, the sun, rising and setting in a cloudless sky, pours his vertical rays upon the thirsty llanos, the calcined² grass-plains present the 'monotonous

aspect of an 'interminable waste. Like the ocean, their limits melt in the hazy distance with those of the horizon ; but here the resemblance ceases, for no refreshing breeze wafts coolness over the desert to comfort the drooping spirits of the wanderer.

In the wintry solitudes of Siberia³ the skin of the reindeer affords 'protection to man against the extreme cold ; but in these sultry plains there is no refuge from the burning sun above and the heat reflected from the glowing soil, save where, at vast intervals, small clumps of the *Maurítia* palm afford a scanty shade. The water-pools which 'nourished this beneficent tree have long since disappeared ; and the marks of the previous rainy season, still visible on the tall reeds that spring from the marshy ground, serve only to mock the thirst of the 'exhausted traveller.

Yet even now the parched savanna⁴ has some refreshment to bestow, for the globular melon-cactus,⁵ which flourishes on the driest soil, and sometimes measures a foot in diameter, conceals a juicy pulp under its tough and prickly skin. Guided by an 'admirable instinct, the wary mule strikes off with his forefeet the long, sharp thorns of this remarkable plant, the emblem of good nature under a rough exterior, and then 'cautiously advances his lips to sip the refreshing juice.

As, in the Arctic regions, the intense cold during winter retards pulsation, or even suspends the operations of life, so in the llanos the long continuance of drought causes a similar 'stagnation in animated nature. The thinly scattered trees and shrubs do not, indeed, cast their foliage, but the grayish-yellow of their leaves announces that vegetation is suspended. Buried in the clay of the dried-up pools, the alligator⁶ and the water-boar⁷ lie plunged in a deep summer sleep, like the bear of the North in his long winter slumber ; and many animals which, at other times, are found roaming over the llanos have left the parched plains and migrated to the forest or the river.

The large maneless puma, and the spotted jaguar, following their prey to less arid regions, are now no longer seen in their former hunting-grounds ; and the Indian has also disappeared with the stag he pursued with his poisoned arrows. In Siberia, the reindeer and the 'migratory birds are scared away by cold ; here, life is banished and suspended by an intolerable heat.

Sometimes the ravages of fire are added to complete the image of death on the parched savanna.

"We had not yet 'penetrated far into the plain," says Sir

Robert Schomburgk,^(b) "when we saw to the south-east high columns of smoke ascending to the skies—the sure signs of a savanna fire; and at the same time the Indians anxiously pressed us to speed on, as the burning torrent would most likely roll in our direction.

"We could already distinguish the flames of the advancing column, already hear the bursting and crackling of the reeds, when, fortunately, the sharp eye of the Indians discovered some small eminences before us, only sparingly covered with a low vegetation, and to these we now careered as if Death himself were behind us. Half a minute later and I should not have lived to relate our adventures. With beating hearts we saw the sea of fire rolling its devouring billows towards us: the suffocating smoke, heating on our faces, forced us to turn our backs upon the advancing conflagration, and to await the dreadful decision with the resignation of helpless despair.

"And now we were in the midst of the blaze. Two arms of fire encircled the base of the little hillock on which we stood, and united before us in a waving mass, which, rolling onwards, travelled further and further from our gaze. The flames had devoured the short grass of the hillock, but had not found sufficient nourishment for our destruction. Soon the deafening noise of the conflagration ceased, and the dense black clouds in the distance were the only signs that the fire was still proceeding on its devastating path over the wide wastes of the savanna."

At length, after a long drought, when all nature seems about to expire from the want of moisture, various signs announce the approach of the rainy season.⁸ The sky, instead of its brilliant blue, assumes a leaden tint, from the vapours which are beginning to condense. Like distant mountain-chains, banks of clouds begin to rise over the horizon, and, forming in masses of increasing density, ascend higher and higher, until at length the sudden lightnings flash from their dark bosom, and with the loud crash of thunder the first rains burst in torrents over the thirsty land.

Scarcely have the showers had time to moisten the earth, when the dormant powers of vegetation begin to awaken with an almost miraculous rapidity. The dull, tawny surface of the parched savanna changes, as if by magic, into a carpet of the most lively green, enamelled with thousands of flowers of every colour.

And now, also, the animal life of the savanna awakens to the

full enjoyment of 'existence. The horse and the ox rejoice in the grasses, under whose covert the jaguar⁹ frequently lurks to pounce upon them with his fatal spring. On the border of the swamps, the moist clay, slowly heaving, bursts asunder, and from the tomb in which he lay embedded rises a gigantic water-snake or huge crocodile.

The new-formed pools and lakes swarm with life, and a host of water-fowl,—i'bises, cranes, flamin'gees,—make their appearance to regale on the abundant 'banquet. A new creation of insects and other unbidden guests now seek the wretched hovels of the Indians. Worms and vermin of all names and forms emerge from the 'inundated plain; for the tropical rains have gradually converted the savanna, which erewhile exhibited a waste as dreary as that of the Sahara, into a boundless lake.

HARTWIG AND SCHOMBURGK.

ad'mirable, won'derful.
announc'e, in'timate.
bail'quet, feast.
cau'tiously, care'fully.
den'sity, bulk; thick'ness
dev'astating, destroy'ing.
devour'ing, rav'aging.
em'inences, eleva'tions.

exhaust'ed, worn-out.
exist'ence, life.
immeas'urable, immense'.
insignif'icant, inconsider-
able.
inter'minable, end'less
inun'dated, overflow'ed'.
mi'gratory, wand'ering.

monot'onous, tire'some.
nour'ished, support'ed.
pen'etrated, made way.
protec'tion, cover'ing.
rapid'ity, speed; celer'ity
stagna'tion, dead'ness.
surpass'es, excels'; ex-
ceeds'.

¹ Lla'nos, extensive open plains.

² Cal'cined, converted into powder by heat, or made so as easily to be crumbled.

³ Sibe'ria, the Russian territory extending across the north of Asia.

⁴ Savan'na, a wide meadow, covered with long grass.

⁵ Mel'on-cac'tus, a plant of the cactus family, which are all natives of America, with fruit the shape of a melon. The fruit of another kind of cactus is called the prickly pear, or Indian fig.

⁶ Ali'gator, a ferocious and powerful reptile, resembling very closely the crocodile of the Nile. Its ordinary length is from fifteen to eighteen feet; but it is sometimes much longer. Its numerous teeth are very sharp, and it has a most formidable tail.

⁷ Water-bo'a, a species of snake which has the power of living in water.

⁸ The rainy season.—In tropical countries, there is a dry season, during which there is no rain, followed by a rainy season, during which rain falls every day. At and near the equator, there are two rainy seasons and two dry ones in the year; at the tropics, only one. The reason of this is, that the rain depends upon the sun, which crosses the equator twice a year, and each of the tropics only once. This description of the return of the rainy season in South America should be compared with that of the advent of the south-west monsoon in Ceylon, at p. 293.

⁹ Jag'uar, the American tiger or panther, an extremely fierce and destructive beast of prey.

QUESTIONS.—What is the characteristic feature of Nature in South America? What striking contrast do the llanos of South America present at different seasons? Wherein do they differ from the wintry solitudes of Siberia? What refreshment does the mule obtain in the savanna? What effect has the drought upon animated nature? What animals bury themselves for the season? What sometimes adds its ravages to complete the image of death? What is the best way to escape from it? What signs announce the approach of the rainy season? What is remarkable about the revival of vegetation? What animals return to the savanna? Into what have the tropical rains converted it?

THE DEATH OF NAPOLEON AT ST. HELENA.

May 5, 1821.

WILD was the night,¹ yet a wilder night
 Hung round the soldier's pillow;
 In his bosom there raged a fiercer fight
 Than the fight on the 'wrauthful 'billow.

A few fond 'mourners were 'kneeling by,—
 The few that his stern heart 'cherished;
 They knew, by his glazed and unearthly eye,
 That life had nearly perished.

• They knew, by his awful and kingly look,
 By the order hastily spoken,
 That he dreamed of days when the nations shook,
 • And the nations' hosts were broken.

He dreamed that the Frenchmen's sword still slew,
 Still 'triumphed the Frenchmen's "eagle;"
 And the struggling Austrian fled anew,
 Like the hare before the beagle.²

The bearded Russian he 'scourged again,
 The Prussian's camp was routed;
 And again on the hills of 'haughty Spain
 His mighty armies shouted.

Over Egypt's sands, over Alpine snows,
 At the pyramids, at the mountain,
 Where the wave of the lordly Danube flows,
 And by the Italian fountain;

On the snowy cliffs where mountain streams
 Dash by the Switzer's dwelling,
 He led again, in his dying dreams,
 His hosts, the broad earth 'quelling.

Again Mareñ'go's³ field was won,
 And Je'na's⁴ bloody battle;
 Again the world was over-run,
 Made pale at his cannons' rattle.

He died at the close of that 'darksome day—
 A day that shall live in story:
 In the rocky land⁵ they placed his clay,
 And "left him alone with his glory."⁶

M'LELLAN.

bil'low, wave.

cher'ished, fos'tered; held
 dear.

dark'some, dis'mal.

haught'y, imper'ious.

kneel'ing, on bended knee
 mourn'ers, sor'rowers.

quell'ing, overpowering.

scourged, lashed; pun'
 ished.

tri'umphed, prevailed'.

wrauth'ful, angry.

¹ Wild was the night.—“As if to mark a closing point of resemblance betwixt Cromwell and Napoleon, a dreadful tempest arose on the 4th of May, which preceded the day that was to close the mortal existence of this extraordinary man. A willow, which had been the exile's favourite, and under which he often enjoyed the fresh breeze, was torn up by the hurricane; and almost all the trees about Longwood shared the same fate. The 5th of May came amid wind and rain. Napoleon's passing spirit was deliriously engaged in a strife more terrible than that of the elements around. The words ‘Tête d'armée,’ the last which escaped his lips, intimated that his thoughts were watching the current of a heady fight. About eleven minutes before six in the evening, Napoleon, after a struggle which

indicated the original strength of his constitution, breathed his last.”—SCOTT'S *Life of Napoleon*.

² Beagle, a small hound, formerly used in hunting hares.

³ Marengo, in Italy, where Napoleon, after crossing the Alps, defeated the Austrians in 1800.

⁴ Jéna, in Saxe-Weimar (Germany), where Napoleon defeated the Prussians in 1806.

⁵ In the rocky land, &c.—He was buried on St. Helena in 1821; but in 1840 his remains were, with the consent of England, removed to France, and reinterred in Paris.

⁶ “Left him alone with his glory.”—This is from the last line of “The Burial of Sir John Moore.” (See p. 22.)

HYMN BEFORE SUNRISE, IN THE VALE OF CHAMOUNI.¹

HAST thou a charm to stay the morning star
In his steep course? So long he seems to pause
On thy bald, awful head, O sovereign Blanc!²
The Arvè and Arveiron³ at thy base
Rave ceaselessly; but thou, most awful form,
Risest from forth thy silent sea of pines,
How silently! Around thee, and above,
Deep is the air and dark, substantial, black,
An ebon mass: methinks thou piercest it
As with a wedge. But when I look again,
It is thine own calm home, thy crystal shrine,
Thy habitation from eternity.
O dread and silent mount! I gazed upon thee
Till thou, still present to the bodily sense,
Didst vanish from my thought; entranced in prayer
I worshipped the Invisible alone.

Yet, like some sweet beguiling melody,
So sweet we know not we are listening to it,
Thou the meanwhile wast blending with my thought
Yea, with my life, and life's own secret joy;
Till the dilating soul, enrapt, transfused,
Into the mighty vision passing—there,
As in her natural form, swelled vast to heaven.

Awake, my soul! not only passive praise
Thou owest! not alone these swelling tears,
Mute thanks, and secret ecstasy!⁴ Awake,



THE VALE OF CHAMOUNI.

Voice of sweet song ! Awake, my heart ! awake,
Green vales and icy cliffs ! all join my hymn.

Thou first and chief, sole sovereign of the vale !⁵
Oh, 'struggling with the darkness all the night,
And visited all night by troops of stars,
Or when they climb the sky, or when they sink,—
Companion of the morning star at dawn,
Thyself Earth's rosy star,⁶ and of the dawn
Co-herald,⁷ wake, O wake, and utter praise !
Who sank thy sunless pillars deep in earth ?
Who filled thy countenance with rosy light ?
Who made thee parent of perpetual streams ?

And you, ye five wild torrents⁸ fiercely glad !
Who called you forth from night and utter death,
From dark and icy caverns called you forth,
Down those 'precipitous, black, jagged rocks,
For ever 'shattered, and the same for ever ?
Who gave you your 'invulnerable life,
Your strength, your speed, your fury, and your joy,
Unceasing thunder, and eternal foam ?
And who commanded, and the silence came,—
"Here let the billows stiffen and have rest" ?

Ye ice-falls! ye that from the mountain's brow
 Adown enormous 'ravines slope amain—
 Torrents, methinks, that heard a mighty voice,
 And stopped at once amid their maddest plunge!
 Motionless torrents!⁹ silent 'cataracts!
 Who made you glorious as the gates of heaven
 Beneath the keen full moon? Who bade the sun
 Clothe you with rainbows? Who, with living flowers
 Of loveliest blue,¹⁰ spread garlands at your feet?—
 God! let the torrents, like a shout of nations,
 Answer! and let the ice plains echo, God!
 God! sing, ye meadow streams, with gladsome voice!
 Ye pine groves, with your soft and soul-like sounds!
 And they, too, have a voice, yon piles of snow,
 And in their perilous fall shall thunder, God!

Ye living flowers that skirt the 'eternal frost!
 Ye wild goats sporting round the eagle's nest!
 Ye eagles, playmates of the mountain storm!
 Ye lightnings, the dread arrows of the clouds!
 Ye signs and wonders of the elements!
 Utter forth God! and fill the hills with praise!

S. T. COLERIDGE.^(b)

beguiling, fascinating.
 cat'aracts, waterfalls.
 ceaselessly, constantly.
 companion, associate.
 dilating, expanding.

entranced', enraptured.
 eternal, everlasting.
 invulnerable, impregnable.
 precipitous, steep. (ble.
 ravines, gorges.

shattered, shivered.
 struggling, contending.
 substantial, solid.
 transfused', translated.
 worshipping, adored.

¹ Châ'mouni, a celebrated village and valley in Savoy, at the foot of Mont Blanc.—This hymn should be compared with "Adam and Eve's Morning Hymn," from Milton's *Paradise Lost*; and also with Thomson's "Hymn" appended to *The Seasons*.

Blanc, the highest mountain in Europe; *lit.* "the white mountain," from its peak being perpetually snow-clad. Height, 15,744 feet. It is in France, on the borders of Savoy and Piedmont.

² The Arvè and Arveiron, torrents which have their sources in the glaciers of Mont Blanc.

³ Ecstasy, transport; a degree of delight which absorbs the whole mind; *lit.* a standing out of oneself. [Gr. *ek-stasis*, a standing out.]

⁴ Sovereign of the vale, an apostrophe, or address to Mont Blanc.

⁵ Earth's rosy star, a reference to beautiful colours which the snow crystals assume in the sunshine, especially at sunrise.

⁷ Of the dawn co-herald.—Because, from its great height, it catches and re-

flects the first rays of light long before surrounding objects.

⁸ Five wild torrents.—Besides the Arvè and Arveiron, already mentioned, five outstanding torrents rush down the sides of the mountain.

⁹ Motionless torrents.—This and the preceding lines describe glaciers—slowly moving streams of ice which are formed in the higher parts of the Alps, and gradually move down to the warmer regions, where they melt away. In point of fact glaciers are not "motionless," and not always "silent." Their motion, which resembles that of a river—the centre advancing faster than the sides—varies in rate from 100 to 400 feet in a year. The different rates at which the different parts of a glacier move often cause rents to be made across it, and these are accompanied by loud explosions like the reports of cannon.

¹⁰ Living flowers of loveliest blue—the blue gentian, which grows luxuriantly on the very skirts of the glaciers. See also seven lines below—"Ye living flowers," &c.

"WITH BRAINS, SIR."

"PRAY, Mr. Opie,¹ may I ask what you mix your colours with?" said a brisk dilettante² student to the great painter. "With *Brains*, sir," was the gruff reply—and the right one. It did not give much of what we call 'information'; it did not 'expound the principles and rules of art: but, if the inquirer had the 'commodity referred to, it would 'awaken him; it would set him a-going, a-thinking, and a-painting to good purpose. If he had not the wherewithal, as was likely enough, the less he had to do with colours and their mixture the better.

Many other artists, when asked such a question, would have either set about detailing the 'mechanical composition of such and such colours, in such and such 'proportions, compounded so and so; or perhaps they would have shown him how they laid them on: but even this would have left him at the critical point. Opie preferred going to the quick and the heart of the matter: "With Brains, sir."

Sir Joshua Reynolds³ was taken by a friend to see a picture. He was 'anxious to admire it, and he looked over it with a keen and careful but favourable eye. "Capital composition; correct drawing; the colour and tone excellent: but—but—it wants—it wants—*That!*" snapping his fingers; and wanting "that," though it had everything else, it was worth nothing.

Again: Etty,⁴ who was appointed teacher of the students of the Royal Academy, had been preceded by a clever, talkative, 'scientific expounder of æsthetics,⁵ who had delighted to tell the young men *how* everything was done—how to copy this, and how to express that. A student went up to the new master: "How should I do this, sir?" "Suppose you try."—Another: "What does this mean, Mr. Etty?" "Suppose you look." "But I have looked." "Suppose you look again."

And they did try, and they did look, and look again; and they saw and 'achieved what they never could have done, had the how or the what (supposing that possible, which it is not in its full and highest meaning) been told them, or done for them. In the one case, sight and action were immediate, exact, 'intense, and secure; in the other, mediate, feeble, and lost as soon as gained.

But what are "Brains"? what did Opie mean? And what is Sir Joshua's "That"? what is included in it? And what is the use or the need of trying and trying, of missing often before you hit, when you can be told at once and be done with it? or of

looking, when you may be shown? Everything depends on the right answers to these questions.

What the painter needs, in addition to, and as the complement of, the other elements, is genius and sense; what the doctor needs, to crown and give worth and safety to his accomplishments, is sense and genius: in the first case, more of this than of that; in the second, more of that than of this. These are the "Brains" and the "That."

And what is genius? and what is sense? *Genius* is a peculiar in-born aptitude, or tendency, to any one calling or pursuit over all others.....It was as natural, as inevitable, for Wilkie⁶ to develop himself into a painter, and into such a painter as we know him to have been, as it is for an acorn when planted to grow up an oak.

But genius, and nothing else, is not enough, even for a painter: he must likewise have sense; and what is sense? *Sense* drives, or ought to drive, the coach: sense regulates, combines, restrains, commands, all the rest—even the genius; and sense implies exactness and soundness, power and promptitude of mind.

But it may be asked, how are the brains to be strengthened, the sense quickened, the genius awakened, the affections raised—the whole man turned to the best account? You must invigorate the containing and sustaining mind; you must strengthen him from within, as well as fill him from without; you must discipline, nourish, edify, relieve and refresh his entire nature; and how?

Encourage not merely book knowledge, but the personal pursuit of natural history, of field botany, of geology, of zoölogy. Give the young, fresh, unforgetting eye exercise and free scope upon the infinite diversity and combination of natural colours, forms, substances, surfaces, weights, and sizes. Give young students everything, in a word, that will educate their eye and ear, their touch, taste, and smell, their sense of muscular resistance. Encourage them to make models, preparations, and collections of natural objects. Above all, try to get hold of their affections, and make them put their hearts into their work.

But one main help is to be found in study; and by this we do not mean the mere reading, but the digging into and through, the energizing upon and mastering, the best books. Taking up a book and reading a chapter of lively, manly sense, is like taking a game at cricket or a run to the top of a hill. Exertion quickens your pulse, expands your lungs, makes your

blood warmer and redder, fills your mouth with the pure waters of relish, strengthens and 'supplies your legs: and though on your way to the top you may encounter rocks and baffling 'débris, just as you will find in serious and honest books difficulties and puzzles, still you are rewarded at the top by a wide view. You see as from a tower the end of all. You see the clouds, the bright lights and the everlasting hills on the far horizon. You come down from the hill a happier, a better, and a hungrier man, and of a better mind.

But, as we said, you must eat the book—you must crush it, and cut it with your teeth and swallow it; just as you must walk up, and not be carried up the hill, much less 'imagine you are there, or look upon a picture of what you would see were you up, however 'accurately or 'artistically done: no—you yourself must *do* both. He who has obtained any amount of knowledge is not truly wise unless he 'appropriates and can use it for his need.

J. BROWN, M.D.

ac'curately, correct'ly
achieved', accom'plished.
an'xious, destr'ous.
appro'priates, assim'ilates.
ap'titude, fit'ness.
art'istically, taste'fully.
commod'ity, ar'ticle.
com'plement, what sup-
plies a defficiency.

débris', (dā-bree) rub'bish.
dis'cipline, train
divers'ity, vari'ety.
energiz'ing, exercising the
expound', explain'. [mind.
imag'ine, fancy.
informa'tion, knowl'edge.
intense', ear'nest.
invig'orate, strength'en.

mechani'cal, phys'ical.
mus'cular, phys'ical.
prompt'itude, read'iness.
propor'tions, quan'tities
reg'ulates, controls'.
relieve', suc'cour.
restrains', curbs.
scientific, theore'tical.
sup'ples, makes pliant.

¹ **Opie, John**, an eminent English painter. From being the son of a Cornish carpenter, who discouraged his taste for art, he rose to be Professor of Painting in the Royal Academy, London. Born 1761; died 1807.

² **Dilettante**, a superficial dabbler in art or science.

³ **Sir Joshua Reynolds**, an unrivalled English portrait painter. He was the first president of the Royal Academy of London. He was also the friend of Johnson,

Burke, Goldsmith, and of the leading literary men of his time. Born 1723; died 1792.

⁴ **Etty, William**, a distinguished English artist. Born 1737; died 1849.

⁵ **Æsthetics**, the principles of taste; the theory or science of the beautiful in art. The word is derived from a Greek verb meaning "I feel."

⁶ **Wilkie, Sir David**, a celebrated Scottish painter, well known by his works, *The Village Politicians*; *The Rent Day*; *Blind Man's Buff*, &c.

QUESTIONS.—What question did the student ask Opie? What kind of student was he? What answer did Opie give him? What might many other artists have replied? What did Sir Joshua Reynolds say his friend's picture wanted? What did Etty reply to students who asked him how to do things, and what things meant? What did all these answers point to as necessary to the painter? What is Genius? What is the office of Sense? What must be done to awaken genius and quicken sense? To what is reading a chapter of lively, manly sense compared? How must a book be read, that it may do good? He who has obtained any amount of knowledge is not truly wise unless—?

LIFE IN SAXON ENGLAND.*

PART I.

WHEN the sun rose on Old England, its faint red light stirred every sleeper from the sack of straw, which formed the only bed of the age. Springing from this rustling couch, and casting off the coarse sheeting and coverlets of skin, the subjects of King Alfred donned the day's dress. Men wore linen or woollen tunics, which reached to the knee; and, over these, long fur-lined cloaks, fastened with a brooch of ivory or gold. Strips of cloth or leather, bandaged cross-wise from the ankle to the knee over red and blue stockings; and black, pointed shoes, slit along the instep almost to the toes, and fastened with two thongs, completed the costume of an Anglo-Saxon¹ gentleman. The ladies, wrapping a veil of silk or linen upon their delicate curls, laced a loose-flowing gown over a tight-sleeved bodice, and pinned the graceful folds of their mantles with golden butterflies and other tasteful trinkets.

The breakfast hour in Old England was nine o'clock. This meal consisted 'probably of bread, meat, and ale, but was a lighter repast than that taken when the hurry of the day lay behind. It was eaten often in the bower. Between breakfast and noon-meat at three lay the most active period of the day. Let me picture a few scenes in Old English life, as 'displayed in the chief occupations of the time.

Leaving the ladies of his household to linger among the roses and lilies of their gardens, or to ply their embroidering needles in some cool recess of the orchard, 'festooned with broad vine leaves and scented with the smell of apples, the earl or thane went out to the porch of his dwelling, and, sitting there upon a fixed throne, gave alms to a horde of beggars, or presided over the assembly of the local court.

Autumn brought delightful days to the royal and noble sportsmen of Old England. Galloping down from his home, perched, as were all great English houses, on the crest of a commanding hill, the earl, with all care or thought of work flung aside, dashed with his couples of deep-chested Welsh hounds into the glades of a neighbouring forest, already touched with the red and gold of September.

Gaily through the shadowy 'avenues rang the music of the

* Adapted from *History of the British Empire* (Advanced Class-Book), by W. F. COLLIER, LL.D. T. Nelson and Sons.

horns, startling red deer and wild boars from their coverts in the brushwood. Away after the dogs, maddened by a fresh scent, goes the gallant hunt—past swine-herds with their goads, driving vast herds of pigs into the dales, where beech-mast² and acorns lie thick upon the ground—past wood-cutters, hewing fuel for the castle fire, or ‘munching their scanty meal of oaten bread about noon; nor is bridle drawn until the game, antlered or tusked, has rushed into the strong nets spread by attendants at some pass among the trees.

Hawking long held the place of our modern shooting. Even the grave and business-like Alfred devoted his pen to this ‘enticing subject. And we can well understand the high spirits and merry talk of a hawking party, cantering over rustling leaves, all white and crisp with an October frost, on their way to the reedy mere, where they made sure of abundant game. On each rider’s wrist sat a hooded falcon, caught young, perhaps in a dark pine-wood of Norway, and carefully trained by the falconer, who was no ‘unimportant official in an Old English establishment.

Arrived at the water, the party broke into sets; and as the blue heron rose on his heavy wing, or a noisy splashing flight of ducks sprang from their watery rest, the hood was removed, and the game shown to the sharp-eyed bird, which, soaring loose into the air from the up-flung wrist, cleft his way in ‘pursuit with rapid pinion, rose above the doomed ‘quarry, and descending with a sudden swoop, struck fatal talons and yet more fatal beak into its back and head, and bore it dead to the ground. A sharp gallop over the broken surface had meantime brought the sportsman up in time to save the game, and restore the red-beaked victor to his hood and perch.

But hunting and hawking were the pastimes of the rich. While fat deer fell under the hunter’s dart, and blue feathers strewed the banks of lake and river, the smith³ hammered red iron on his ringing anvil—the carpenter cut planks for the mead-bench⁴ or the bower-wall, or shaped cart-wheels and plough-handles for the labours of the farm—the shoemaker, who also tanned leather and ‘fashioned harness, plied his busy knife and needle—the furrier prepared skins for the lining of stately robes—and in every cloister monks, deep in the ‘mysteries of the furnace, the graving-tool, the paint-brush, and a score of similar instruments, manufactured the best bells, crucifixes, jewelry, and stained glass then to be found in the land.

The Old English farmers were rather graziers than tillers of the

soil. Sheep for their wool, swine for their flesh, kine for their beef and hides, dotted the pastures and grubbed in the forests near every steading. But there was agriculture too. A picture of an Old English farm-house would present, though of course in ruder form, many features of its modern English successor. Amid fields, often bought for four sheep an acre, and scantily manured with marl after the old British fashion, stood a timbered house, flanked by a farm-yard full of ox-stalls and stocked with geese and fowl. A few bee-hives—the islands⁵ of the sugar-cane not being yet discovered—suggested a mead-cask always well filled, and a good supply of sweetmeats for the board; while an orchard, thick with laden boughs, supplied pears and apples, nuts and almonds, and in some districts figs and grapes.

From the illustrations of an Old English manuscript we know something of the year's farm-work. January saw the wheel of the iron plough drawn down the brown furrows by its four oxen, harnessed with twisted willow ropes or thongs of thick whale-skin. They dug their vineyards in February, their gardens in March. In April, when seed-time was past, they took their ease over horns of ale. May prepared for the shearing of the wool. June⁶ saw the sickles in the wheat; July⁶ heard the axe among the trees. In August barley was mown with scythes. In September and October hounds and hawks engrossed every day of good weather. Round November fires farming implements were mended or renewed; and the whirling flail, beating the grain from its husk, beat also December chills from the swiftly-running blood. We find in the threshing scene a steward, who stands keeping count, by notches on a stick, of the full baskets of winnowed grain which are pouring into the granary.

Ships came from the Continent to Old England, laden with furs and silks, gems and gold, rich dresses, wine, oil, and ivory; bearing back, most probably, blood-horses, wool for the looms of Flanders, and in earlier times English slaves for the markets of Aix-la-Chapelle and Rome. The backward condition of trade may be judged from a law which enacted that no bargain should be made except in open court, in presence of the sheriff, the mass-priest, or the lord of the manor.

Merchants, travelling in bands for safety, and carrying their own tents, passed round the different country towns at certain times, when holiday was kept and village sports filled the green with noisy mirth. The wives and daughters of Old English cottages loved bright ribbons and showy trinkets, after the fashion of their sex. So while Gurth was wrestling on the

grass, or grinning at the 'antics of the dancing bear, Githa was 'investing her long-hoarded silver pennies in some strings of coloured beads or an ivory comb.

Close to the merchant or pedler (if we give him the name which best expresses to modern ears the habit of his life) stood an attendant with a pair of scales, ready to weigh the money in case of any considerable sale. Slaves and cattle formed, in early times in England, a common medium of 'exchange. Whenever gold shone in the merchant's sack, it was chiefly the Byzantine gold *solidus*, shortly called Byzant',⁷ worth something more than nine of our shillings. Silver Byzants, worth two shillings, also passed current; and in earlier times Roman money, stamped with the heads of emperors, found its way into English purses.

By the English in olden times a journey was never undertaken for mere pleasure, for many perils beset the way. The rich went short journeys in heavy waggons, longer journeys on horseback—the ladies riding on side-saddles as at present. But most travelling was performed afoot. Horsemen carried spears, for defence against robbers or wild beasts; pedestrians held a stout oak staff, which did double work in aiding and in defending the traveller. The stirrup was of an odd 'triangular shape, the spur a simple spike. A cover wrapped the head, and a mantle the body, of the traveller. That they sometimes carried umbrellas we know; but these were probably very rare, being confined, like gloves, to the very highest class.

Ale-houses, in which too much time was spent, abounded in the towns; but in country districts inns⁸ were scarce. There were indeed places, like an Eastern caravansary,⁹ where travellers, carrying their own 'provisions, found a refuge from wind and rain by night within bare stone walls; the patched-up ruins, perhaps, of an old Roman villa or barrack, which afforded a cheerless shelter to the weary, dripping band. But the 'hospitality of the Old English folk, 'implanted both by custom and by law—not after the narrow modern fashion of entertaining friends, who give parties in return, but the welcoming to bed and board of all comers, known and unknown—caused the lack of inns to be scarcely felt, except in the wilder districts of the land.

No sooner did a stranger show his face at the iron-banded door of an Old English dwelling than water was brought to wash his hands and feet; and when he had 'deposited his arms with the keeper of the door, he took his place at the board among the family and friends of the host. For two nights no question pried into his business or his name; after that time the

host became 'responsible for his character. There were few solitary wayfarers; for the very fact of being alone 'excited suspicion, and exposed the traveller to the risk of being 'arrested, or perhaps slain, as a thief.

an'tics, tricks.
 arrest'ed, seized.
 av'enués, al'leys, groves.
 depos'ited, left.
 display'ed, exhib'ited.
 engross'ed, monopolized.
 entic'ing, attract'ive.
 exchange, commerce.
 excit'ed, aroused'.
 fash'ioned, shaped.

feat'ures, as'pects.
 festoon'ed, gar'landed.
 har'nessed, yoked. [guests.
 hospital'ity, kindness to
 illustra'tions, pictures.
 implant'ed, instilled'.
 im'plements, tools.
 invest'ing, laying out.
 munch'ing, chew'ing.
 mys'teries, so'crets.

prob'ably, like'ly.
 provi'sions, suppli'es of
 pursu'it, chase. [food.
 quar'ry, prey.
 respon'sible, an'swerable.
 suppli'ed, furn'ished.
 tim'bered, wood'en.
 trian'gular, three-cornered
 unimport'ant, insignifi-
 cant.

¹ **Anglo-Saxon.**—By the *Anglo-Saxons* we are to understand our Old-English forefathers. They, however, called themselves Englishmen; never Anglo-Saxons. That name is convenient enough to distinguish the earliest from later English; but in so far as it countenances the theory that the English speech and nation are the result of a combination of Anglo-Saxon and Norman elements, and different from both, it is wrong. The history of the language, which is the true test of nationality, can be traced in an unbroken line from the sixth and seventh centuries to the present day. The term *Anglo-Saxon* is liable to another objection. It is often supposed to mean *English Saxon* as distinguished from *Continental Saxon*; but in truth it only means *Angles and Saxons* in combination. *Anglian* or *Old English* for the speech and people, and *Old England* for the country, are, perhaps, less objectionable terms.

² **Beech-mast.**—The fruit of beech, oak,

and other forest trees, is called in Old English *mast*.

³ **The smith.**—There were two kinds of smiths;—the armourer, who was well paid, and held a high social place; and the mere blacksmith, who did the coarser work.

⁴ **Mead-bench,** the bench on which they sat to drink mead, a kind of sweet wine made of honey and water.

⁵ **The islands, the West Indies.**

⁶ **June, July.**—It is thought that the artist has here transposed June and July by mistake.

⁷ **Byzan't,** a gold coin; so called from its having been made at Byzantium, afterwards Constantinople.

⁸ **Inns.**—*Inn* is an Old English word, meaning "lodging." Other names for it were *gest-hūs*; that is, "guest-house;" and *cumena-hūs*; that is, the "house of comers."

⁹ **Caravansary,** a large square building with a spacious court in the centre, where *caravans*, or companies of travellers, are accommodated for the night.

QUESTIONS.—Of what did beds in Old England consist? How were the men dressed? How were the women? What was the busiest part of the day in Old England? In what did the ladies occupy themselves? In what sports did the rich take part? What held the place of modern shooting? What handicrafts did the working-men follow? What were the farmers chiefly? Whence do we know something of the year's farm work? How did the steward keep count of the quantity of grain? What did ships bring from the Continent? What did they bear back? How did merchants travel? What formed common mediums of exchange? What were the means of travelling? Where did companies of travellers spend the night? What supplied the lack of inns?

LIFE IN SAXON ENGLAND.

PART II.

THE central picture in Old English life—the great event of the day—was *Noon-meal*, or dinner in the great hall. A little before three, the chief and all his household, with any stray guests who might have dropped in, met in the hall, which stood in the centre of its encircling bowers—the principal apartment of every Old English house. Clouds of wood-smoke, rolling up from a fire which blazed in the middle of the floor, blackened the carved and gilded rafters of the arched roof before it found its way out of the hole above, which did duty as a chimney.

Tapestries of purple dye, or glowing with variegated pictures of saints and heroes, hung, or, if the day was stormy, flapped upon the chinky walls. In palaces and in earls' mansions coloured tiles, wrought like Roman *tesserae*¹ into a mosaic, formed a clean and pretty pavement; but the common flooring of the time was of clay, baked dry with the heat of winter evenings and summer noons. The only articles of furniture always in the hall were wooden benches; some of which, especially the *high settle* or seat of the chieftain, boasted cushions, or at least a rug.

While the hungry crowd, fresh from woodland and furrow, were lounging near the fire or hanging up their weapons on the pegs and hooks that jutted from the wall, a number of slaves, dragging in a long, flat, heavy board, placed it on movable legs, and spread on its upper half a handsome cloth. Then were arranged with other utensils for the meal some flattish dishes, baskets of ash-wood for holding bread, a scanty sprinkling of steel knives shaped like our modern razors, platters of wood, and bowls for the universal broth.

The ceremony of "laying the board," as the Old English phrased it, being completed, the work of demolition began. Great round cakes of bread—huge junks of boiled bacon—vast rolls of broiled eel—cups of milk—horns of ale—wedges of cheese—lumps of salt butter—and smoking piles of cabbages and beans, melted like magic from the board under the united attack of greasy fingers and grinding jaws. Kneeling slaves offered to the lord and his honoured guests long skewers or spits, on which steaks of beef or venison smoked and sputtered, ready for the hacking blade.

Poultry, too, and game of every variety, filled the spaces of the

upper board;² but, except naked bones, the crowd of *loaf-eaters*, as Old English domestics were suggestively called, saw little of these daintier kinds of food. Nor did they much care, if to their innumerable hunches of bread they could add enough pig to appease their hunger. Hounds, sitting eager-eyed by their masters, snapped with sudden jaws at scraps of fat flung to them, or retired into private life below the board with some sweet bone that fortune sent them.

With the washing of hands, performed for the honoured occupants of the high settle by 'official slaves, the solid part of the banquet ended. The board was then dragged out of the hall; the loaf-eaters slunk away to have a nap in the byre, or sat drowsily in corners of the hall; and the drinking began. During the progress of the meal, Welsh ale had flowed freely in horns or vessels of twisted glass. Mead, and in very grand houses wine,³ now began to circle in goblets of gold and silver, or of wood inlaid with those precious metals.

Most of the Old English drinking-glasses had rounded bottoms, like our soda-water bottles, so that they could not stand upon the table—a little thing, which then as in later times suggested hard drinking and 'unceasing rounds. Two attendants, one to pour out the liquor, and the other to hand the cups, waited on the 'carousers, from whose company the ladies of the household soon withdrew. The clinking of cups together, certain words of pledge, and a kiss, opened the revel.

In humbler houses, story-telling and songs, sung to the music of the harp by each guest in turn, formed the principal amusement of the drinking-bout. But in great halls, the music of the harp—which, under the poetic name of "glee-wood," was the national instrument—of fiddles played with bow or finger, of trumpets, pipes, flutes, and horns, filled the hot and smoky air with a clamour of sweet sounds. The solo of the ancient *scôp* or maker,⁴ who struck his five-stringed harp in praise of old Teutonic heroes, was exchanged in later days for the performances of the glee-man, who played on many instruments, danced with violent and often comical 'gestures, tossed knives and balls into the air, and did other wondrous feats of jugglery.

Meantime the music and the mead did their work upon maddened brains: the 'revelry grew louder; riddles, which had flown thick around the board at first, gave place to banter, taunts, and fierce boasts of prowess; angry eyes gleamed 'defiance; and it was well if in the morning the household slaves had not to wash blood-stains from the pavement of the hall, or in the still

night, when the drunken brawlers lay stupid on the floor, to drag a dead man from the red plash in which he lay.

From the reek and riot of the hall the ladies escaped to the bower, where they reigned supreme. There, in the earlier part of the day, they had arrayed themselves in their bright-coloured robes, plying tweezers and crimping-irons on their yellow hair, and often heightening the blush that Nature gave them with a shade of rouge. There, too, they used to scold and beat their female slaves, with a violence which said more for their strength of lung and muscle than for the gentleness of their womanhood.

When their needles were fairly set agoing upon those pieces of delicate embroidery, known and prized over all Europe as "English work," some gentlemen dropped in, perhaps harp in hand, to chat and play for their amusement, or to engage in games of hazard and skill, which seem to have resembled modern dice and chess. When in later days supper came into fashion, the round table of the bower was usually spread for *Evening-food*, as this meal was called. And not long afterwards, those bags of straw, from which they sprang at sunrise, received for another night their human burden, worn out with the labours and the revels of the day.

arranged', laid out.
arrayed', decked.
carousers, revellers
central, most important.
chieftain, lord.
completted, finished.
defiance, challenge.

demol'tion, consump'tion
gestures, actions. [ing
height'ening, intensify-
honoured, distinguished.
loung'ing, loitering
officious, over-obliging.
prin'cipal, chief.

resem'bled, been like.
rev'elry, festivity.
suggestively, signific-
cantly.
unceas'ing, incessant.
uten'sils, appliances
va'riegated, checkered.

¹ Tesseræ, the blocks or cubes used in making mosaic pavements. From its diminutive, *tessella*, comes the word *tessellated*, used in describing such pavements.

² The upper board, that at which the host and his guests sat; for the servants and retainers sat in the same room, but at a lower table at the other end of the hall.

³ Wine.—The use of wine among the Old English was limited to the highest class. It was either imported from the Continent or made of home-grown grapes, which since Roman days had ripened in the lower basins of Severn and Thames. Many mon-

asteries, alive to the delights of grape juice, contrived to have a vineyard of their own.

⁴ *Scōp* or *maker*.—The Old English word for "poet" is *scoopa*—that is, *shaper*; in later times *maker* (Scot. *macker*) was used in the same sense. Both words point to creation, or original invention, as the essential part of the poet's work. It may be noticed, also, that the word "poet" comes from a Greek verb signifying to *make*; while the French "troubadour" and "trouvere," and the Italian "trovatore," are all derived from a word meaning to *make*, invent, find out.

QUESTIONS.—What was the great event of the Old English day? When did it take place? Of what did the table consist? By whom was the board laid? Of what did the meal consist? What food did the domestics receive? With what did the solid part of the banquet end? What then began? What did they drink? What was peculiar about their drinking-glasses? Of what is this suggestive? By what performances was the banquet accompanied? In what did it often end? Where had the ladies meantime gone? How did they spend the evening?

SOLILOQUY OF HENRY IV.

O SLEEP, O gentle Sleep,
 Nature's soft nurse,¹ how have I frighted thee,
 That thou no more wilt weigh my eyelids down,
 And steep my senses in 'forgetfulness?
 Why rather, Sleep, liest thou in smoky cribs,
 Upon uneasy 'pallets stretching thee,
 And hushed with buzzing night-flies to thy slumber,
 Than in the 'perfumed chambers of the great,
 Under the 'canopies of costly state,
 And lulled with sounds of sweetest melody?
 O thou dull god! why liest thou with the vile,
 In 'loathsome beds, and leavest the kingly couch?
 A watch-case² or a common 'larum-bell?
 Wilt thou upon the high and giddy mast
 Seal up the ship-boy's eyes, and rock his brains
 In cradle of the rude 'imperious surge
 And in the 'visitation of the winds,
 Who take the ruffian billows by the top,
 Curling their 'monstrous heads, and hanging them
 With deafening clamour in the slippery shrouds,³
 That, with the hurly,⁴ Death itself awakes?
 Canst thou, O partial Sleep!⁵ give thy repose
 To the wet sea-boy in an hour so rude,
 And in the calmest and most stillest⁶ night,
 With all 'appliances and means to boot,
 Deny it to a king? Then, happy low, lie down!⁷
 Uneasy lies the head that wears a crown.

SHAKESPEARE (⁶)—*Henry IV.*, Part ii.

appliances, conveniences.
canopies, awnings.
forgetfulness, oblivion.

impe'rious, despotic
loath'some, disgusting.
mon'strous, enormous.

pal'lets, mat'tresses.
per'fumed, scented.
visita'tion, infliction.

¹ **Nature's soft nurse.**—Shakespeare has many beautiful descriptions of sleep; such as, "sore labour's bath," "balm of hurt minds," "great nature's second course," "chief nourisher in life's feast," "the death of each day's life," "the season of all natures," "the honey-heavy dew of slumber." Milton also speaks of "the timely dew of sleep;" and Young, of—

"Tired nature's sweet restorer, balmy sleep."

² **A watch-case,**—a sentry-box, the watchman in which has to be constantly awake and on the alert.

³ **Shrouds,** the set of ropes (or rope-ladders) which stretch from the mast-head to each side of a vessel, to support the mast. The word in the original was

"clouds;" but Pope very properly altered it to "shrouds."

⁴ **Hurly**, noise; confusion. Elsewhere Shakespeare uses "hurly-burly" in the same sense.

⁵ **Partial Sleep**, sleep which shows an undue preference; the opposite of *impartial*. In its other sense, it is the opposite of *total*.

⁶ **Most stillest.**—Shakespeare often uses double comparatives and superlatives. Other examples are, "most unkindest," "more richer," "more worthier," "less happier."

⁷ **Then, happy low, lie down!**—Then lie down in comfort, happy in being low; for, "Uneasy lies the head that wears a crown."

THE RELIEF OF LUCKNOW.

September 26th, 1857.

HAVELOCK⁽⁶⁾ had determined, when he started in the morning, to relieve the anxiously-waiting garrison¹ that night, or not survive the attempt; and the soldiers, who at first were glad to obtain a moment's rest, became impatient at delay. They had fought their way for nearly a hundred miles to rescue their beleaguered comrades with their wives and children, and they could not rest till they thundered at the gates of their prison.

The garrison in the meantime were anxiously listening for their arrival. They had heard the heavy firing in the morning, and noticed that there was a great sensation in the city. Towards noon they could see the smoke of battle as it rolled upwards over the houses; and, a little later, people hurrying out of the city, carrying bundles of clothes on their heads, followed by large bodies of cavalry and infantry. Although the enemy kept up a steady fire upon them, they were too excited to pay much heed to it, but listened with beating hearts to the heavy cannonade as it wound hither and thither through the streets.

By four o'clock some officers on the look-out reported that they saw, far away, near a palace, a regiment of Europeans and a bullock battery. Soon after, the rattle of musketry was heard in the streets. While they stood listening, a rifle ball went whistling over their heads, and never before was the sound of a bullet so sweet to the ear. It was a voice from their friends, and whispered of deliverance. Five minutes later, and the Highlanders were seen storming through one of the principal streets; and although they dropped rapidly, under the fire from roofs, windows, and doors, there was no faltering.

Then the long restrained excitement burst forth in cheer upon cheer—"from every fort, trench, and battery—from behind sand-bags piled on shattered houses—from every post still held by a few gallant spirits, rose cheer on cheer." The thrilling shouts penetrated even to the hospital, and the wounded crept out into the sun, a ghastly throng, and sent up their feeble voices to swell the glad shout of welcome!

The conversation between Outram⁽⁶⁾ and Havelock² was long and earnest. The former was at first firm in his opinion that they should remain in the palace-court and other sheltered places till morning, and Havelock as thoroughly determined to push on. He said that the garrison might even then be exposed

to the final assault; and if it were not, that the enemy could 'concentrate such a force around them before morning that it would be almost impossible to advance. At length it was agreed to leave the wounded, the heavy guns, and a portion of the army behind, and with only two regiments, the 78th Highlanders and the Sikhs,³ to attempt to reach the Residency.

Outram had been wounded in the arm by a musket-ball early in the morning; but, though faint from loss of blood, he 'refused to leave the saddle, and even now would not dismount. Enduring as he was bold and chivalric, he resolved to accompany Havelock, and share with him the danger, and, if need be, death, in this last 'perilous advance to the relief of the garrison.

Everything being ready, these two gallant commanders put themselves at the head of the slender column, and moved out of the place of shelter. As soon as they entered the street, the houses on either side shot forth flame; while, to prevent the rapid advance of the troops, and hold them longer under the muzzles of their muskets, the enemy had cut deep trenches across the street, and piled up 'barricades.

Passing under an archway that streamed with fire, the gallant Neill⁴ fell from his horse—dead. His enraged followers halted a moment to avenge his death; but the stern order of Havelock, "Forward!" 'arrested their useless attempt, and the column moved on. Each street as they entered it became an 'avenue of flame, through which it seemed impossible for anything living to pass. Every door and window was ablaze, while an 'incessant sheet of fire ran along the margin of the flat roofs, which were black with men.

At each angle batteries were placed, and as soon as the head of the column appeared in 'view the iron storm came drifting down the street, piling it with the dead. The rattling of grape-shot and musket-balls against the walls and on the pavement was like the pattering of hail on the roof of a house! From out those deep avenues the smoke arose as from the mouth of a volcano, while shouts and yells rending the air on every side made still more 'appalling the night, which had now set in.

Between those walls of fire, through that blinding rain of death, Havelock walked his horse 'composedly as if on parade, his calm, 'peculiar voice, now and then rising over the clangour of battle. That he escaped unhurt seems a miracle, for in the previous eleven hours he had lost nearly one-third of his entire

force, while of the two other generals one was dead and the other wounded.

At length the gate of the Residency was reached. A little time was spent in removing the barricades, during which the bleeding column rested, while the moon looked coldly down on the ruins by which they were surrounded. When the passage was cleared, the soldiers, forgetting their weariness, gave three loud cheers, and rushed forward.

Cheers without and cheers within, cheers on every side, betokened the joy and excitement that prevailed, while over all arose the shrill pipes of the Highlanders. The "column of relief" and the garrison rushed into each other's arms, and then the officers passed from house to house to greet the women and children. The stern Highlanders snatched up the children and kissed them, with tears streaming down their faces, thanking God they were in time to save them.

J. T. HEADLEY.

appall'ing, terrify'ing.
arrest'ed, checked; pre-
vent'ed.
av'enu'e, pas'sage; al'ley.
barricades', bar'riers; de-
fen'ces.
bele'a guerd, besieged'.
cannonade', firing of great
guns.

compōs'edly, collect'edly.
concen'trate, bring to-
gether.
conversa'tion, conf'erence.
deliv'erance, relief; res'cue
deter'mined, resolved'.
excite'ment, agita'tion.
impa'tient, fret'ful.
inces'sant, unbro'ken.

pecu'liar, sin'gular.
per'ilous, dan'gerous.
prevailed', exist'ed.
refused', declined'.
remōv'ing, clear'ing away.
restrained', pent-up; re-
pressed'.
sensa'tion, commo'tion.
survive', outlive'.

¹ The anxiously-waiting garrison.—The mutiny broke out at Lucknow, the chief town in Oude (*Ood*), on the 30th of May 1857. As many of the English as could reach it, took refuge in the Residency, which the rebels began to besiege on 1st of July. The garrison was relieved by Outram and Havelock, as described in this lesson, on the 26th of September. Havelock then retired, leaving Outram in command, and the siege by the rebels recommenced. Sir Colin Campbell^(b) (Lord Clyde), accompanied by Havelock, attacked the rebels in Lucknow on the 18th of October, and, after a week's fighting, succeeded in finally rescuing the garrison. Havelock died of dysentery at a suburb of Lucknow on October 25th, aged 62.

² Outram and Havelock.—Outram was

Havelock's superior officer, and was entitled to take the command of the relieving force; but, with true generosity and nobleness of character, he waived his claim, in consideration of the strenuous exertions Havelock had already made to reach the garrison. He therefore accompanied the force as a civilian, and fought under Havelock as a Volunteer!

³ The Sikhs—natives of the Punjab, Northern India, who were conquered by the British in 1849. During the mutiny of 1857 they remained faithful to the British, and helped materially to subdue the rebellion.

⁴ The gallant Neill—General Neill, who had in June suppressed the mutiny at Ben'ares, and afterwards gained many successes over the rebels.

QUESTIONS.—How far had Havelock's force fought its way to rescue the garrison of Lucknow? By what signs did the garrison know that relief was approaching? When did their excitement burst forth in cheers? What was Outram's opinion of what should be done? Why did Havelock differ from him? What was at last agreed upon? What general was shot in the advance? How had the rebels obstructed the passage through the streets? What proportion of his force did Havelock lose before he reached the Residency? What took place when the "column of relief" got inside?

SPEECH OF HENRY V. AT THE SIEGE OF HARFLEUR.

ONCE more unto the breach, dear friends, once more;
 Or close the wall up with our English dead!
 In peace, there's nothing so becomes a man
 As modest stillness and humility;
 But when the blast of war blows in our ears,
 Then imitate the action of the tiger—
 Stiffen the sinews, summon up the blood,
 Disguise fair nature with hard-favoured rage;
 Then lend the eye a terrible aspect;
 Let it pry through the portage of the head,
 Like the brass cannon; let the brow o'erwhelm it,
 As fearfully as doth a galled rock
 O'erhang and jutty his confounded base,
 Swilled with the wild and wasteful ocean.
 Now set the teeth, and stretch the nostril wide;
 Hold hard the breath, and bend up every spirit
 To his¹ full height!—On! on, you noblest English,
 Whose blood is fetched from fathers of war-proof!
 Fathers, that, like so many Alexanders,
 Have, in these parts, from morn till even fought,
 And sheathed their swords for lack of argument.—
 Dishonour not your mothers: now attest
 That those whom you called fathers did beget you!
 Be copy now to men of grosser blood,
 And teach them how to war!—And you, good yeomen,
 Whose limbs were made in England, show us here
 The mettle of your pasture; let us swear
 That you are worth your breeding: which I doubt not;
 For there is none of you so mean and base,
 That hath not noble lustre in your eyes.
 I see you stand like greyhounds in the slips,²
 Straining upon the start. The game's afoot;
 Follow your spirit: and, upon this charge,
 Cry—"Heaven for Harry! England! and St. George!"

SHAKESPEARE. (2)

argument, subject-matter
 attest, give proof.
 becomes, befits.
 confounded, astonished.
 copy, pattern.

disguise, mask.
 dishonour, shame.
 humility, meekness.
 imitate, counterfeit.
 jutty, project over.

mettle, spirit.
 pasture, up-bringing.
 portage, gate-way.
 swilled, deluged.
 yeomen, farmers.

¹ His, for *its*. *His* was in Old Eng. the neuter possessive as well as the masculine, and it was not till after Shakespeare's time that *its* came into common use. *Its* occurs but once in the English Bible (*Lev. xxv. 5*).

² In the slips.—In the running leash, by which the huntsman held the greyhounds, but which could readily be slipped whenever it was time for them to give chase.

THE BALACLAVA CHARGE.

October 25, 1854.

AFTER their repulse in the plain of Balaclava by the Highlanders, two deep,—“that thin red streak topped by a line of steel,”—and by the heavy brigade, the Russian cavalry retired. Their infantry at the same time fell back towards the head of the valley, leaving men in three of the redoubts they had taken, and abandoning the fourth. They had also placed some guns on the heights over their position on the left of the gorge. Their cavalry joined the reserves, and drew up in six solid divisions, in an oblique line, across the entrance to the gorge. Six battalions of infantry were placed behind them, and about thirty guns were drawn up along their line, while masses of infantry were also collected on the hills behind the redoubts on our right. Our cavalry had moved up to the ridge across the valley on our left, and had halted there, as the ground was broken in front.

And now occurred the melancholy catastrophe which fills us all with sorrow. It appears that the Quartermaster-General,¹ Brigadier Airey, thinking that the light cavalry had not gone far enough in front when the enemy's horse had fled, gave an order in writing to Captain Nolan, 15th Hussars, to take to Lord Lucan, directing his lordship “to advance” his cavalry nearer to the enemy. A braver soldier than Captain Nolan the army did not possess. He rode off with the order to Lord Lucan. (He is now dead and gone: God forbid that I should cast a shade on the brightness of his honour, but I am bound to state what I am told occurred when he reached his lordship.)

When Lord Lucan received the order from Captain Nolan, and had read it, he asked, we are told, “Where are we to advance to?” Captain Nolan pointed with his finger to the line of the Russians, and said, “There are the enemy, and there are the guns, sir, before them; it is your duty to take them,”—or words to that effect. Lord Lucan, with reluctance, gave the order to Lord Cardigan to advance upon the guns, conceiving that his orders compelled him to do so. The noble earl, though he did not shrink, also saw the fearful odds against them. Don Quixote,² in his tilt against the windmill, was not nearly so rash and reckless as the gallant fellows who prepared without a thought to rush on almost certain death.

It is a maxim of war, that “cavalry never act without a support;” that “infantry should be close at hand when cavalry

carry guns, as the effect is only 'instantaneous ;' and that it is necessary to have on the flank of a line of cavalry some squadrons in column, the attack on the flank being most dangerous. The only support our light cavalry had was the reserve of heavy cavalry at a great distance behind them, the infantry and guns being far in the rear. There were no 'squadrons in column at all, and there was a plain to charge over, before the enemy's guns could be reached, of a mile and a half in length !

At ten minutes past eleven our light cavalry brigade advanced. The whole brigade scarcely made one 'effective regiment, according to the numbers of continental armies, and yet it was more than we could spare. As they rushed towards the front, the Russians opened on them, from the guns in the redoubt on the right, with volleys of musketry and rifles. They swept proudly past, glittering in the morning sun in all the pride and splendour of war.

We could scarcely believe the 'evidence of our senses. Surely that handful of men are not going to charge an army in position? Alas ! it was but too true. Their desperate valour knew no bounds, and far indeed was it removed from its so-called better part—discretion.³ They advanced in two lines, quickening their pace as they closed upon the enemy. A more fearful 'spectacle was never witnessed than by those who beheld these heroes rushing to the arms of Death.

At the distance of twelve hundred yards the whole line of the enemy belched forth from thirty iron mouths a flood of smoke and flame, through which hissed the deadly balls. Their flight was marked by instant gaps in our ranks, by dead men and horses, by steeds flying wounded or riderless across the plain. The first line is broken—it is joined by the second—they never halt, or check their speed an instant. With 'diminished ranks, thinned by those thirty guns, which the Russians had laid with the most deadly accuracy ; with a halo of flashing steel above their heads, and with a cheer which was many a noble fellow's death-cry, they flew into the smoke of the batteries : but ere they were lost from view the plain was strewed with their bodies, and with the 'carcasses of horses.

They were exposed to an 'oblique fire from the batteries on the hills on both sides, as well as to a direct fire of musketry. Through the clouds of smoke we could see their sabres flashing, as they rode up to the guns and dashed into their midst, cutting down the gunners where they stood. We saw them riding through the guns, as I have said: to our 'delight we saw them returning after breaking through a column of Russian infantry,

and scattering it like chaff, when the flank fire of the battery on the hill swept them down, scattered and broken as they were. Wounded men and riderless horses flying towards us told the sad tale. Demi-gods could not have done what they had failed to do.

At the very moment when they were about to retreat, an enormous mass of Lancers was hurled on their flank. Colonel Shewell, of the 8th Hussars, saw the danger, and rode his few men straight at them, cutting his way through with fearful loss. The other regiments turned, and engaged in a desperate encounter. With courage too great almost for credence, they were breaking their way through the columns which enveloped them, when there took place an act of atrocity without parallel in the modern warfare of civilized nations.

The Russian gunners, when the storm of cavalry passed, returned to their guns. They saw their own cavalry mingled with the troopers who had just ridden over them; and, to the eternal disgrace of the Russian name, the miscreants poured a murderous volley of grape and canister on the mass of struggling men and horses, mingling friend and foe in one common ruin!

It was as much as our heavy cavalry brigade could do to cover the retreat of the miserable remnants of the band of heroes as they returned to the place they had so lately quitted. At thirty-five minutes past eleven not a British soldier, except the dead and the dying, was left in front of those guns. W. H. RUSSELL.^(b)

abandoning, relinquish-
ing.
atroc'ity, barbar'ity.
battal'ions, large compan-
ies.
car'casses, dead bod'ies.
catas'trophe, disaster.
caval'ry, horse sol'diers.
compelled', obliged'.
delight', joy.

dimin'ished, reduced'.
effect'ive, effici'ent; com-
plete'.
encoun'ter, conf'lict.
enor'mous, very great.
ev'idence, tes'timony.
in'fantry, foot sol'diers.
instanta'neous, moment-
ary.
miscreants, wretch'es.

oblique', slant'ing.
occurred', happened.
par'allel, match.
redoubts', out'works.
reluc'tance, unwill'ingness.
rem'nants, surv'ivors.
repulse', defeat'.
spec'tacle, sight.
squad'rons, bod'ies of
troops.

¹ Quartermaster-General, the chief of that department of an army which provides quarters for it, and all that that implies,—as provisions, clothing, transport, &c.

² Don Quixote, the hero of a famous Spanish mock-romance by Cervantes; one of whose exploits, that of running a tilt

against a windmill, has become proverbial for hare-brained folly. Hence 'Quixotic' as a synonym for rash, precipitate.

³ Discretion, a reference to the well-known proverb, "The better part of valour is discretion." (See *Shakespeare*, 1 Henry IV. Act v. Scene 4.)

QUESTIONS.—What position did the Russian cavalry take up after retiring? How many guns were drawn up along their line? What order did Airey send to Lucan? How did Nolan explain it? To whom did Lucan give the order to advance? What maxim of war was violated in this? What took place at the distance of twelve hundred yards from the enemy? Where did the light cavalry then make their way? To what were they exposed on their way back? Of what act of atrocity were the Russian gunners guilty?

THE CHARGE OF THE LIGHT BRIGADE.

HALF a 'league, half a league,
 Half a league onward,
 All in the 'valley of Death
 Rode the Six Hundred.
 "Forward the Light Brigade!
 Charge for the guns," he said:
 Into the valley of Death
 Rode the Six Hundred.

"Forward the Light Brigade!"
 Was there a man 'dismayed?
 Not though the soldier knew
 Some one had 'blundered:¹
 Theirs not to make 'reply,
 Theirs not to reason why,
 Theirs but to do and die:
 Into the valley of Death
 Rode the Six Hundred.

Cannon to right of them,
 Cannon to left of them,
 Cannon in front of them,
 'Volleyed and 'thundered;
 Stormed at with shot and shell,
 Boldly they rode and well;
 Into the jaws of Death,
 Into the mouth of Hell,
 Rode the Six Hundred.

Flashed all their sabres bare,
 Flashed as they turned in air,
 'Sabring the gunners there,
 Charging an army, while
 All the world 'wondered:
 'Plunged in the 'battery smoke,
 Right through the line they broke:
 Cossack² and Russian
 Reeled from the sabre stroke,
 'Shattered and 'sundered.
 Then they rode back, but not—
 Not the Six Hundred.

Cannon to right of them,
 Cannon to left of them,
 Cannon behind them,
 Volleyed and thundered;

Stormed at with shot and shell,
While horse and hero fell,
They that had fought so well
Came through the jaws of Death,
Back from the mouth of Hell,
All that was left of them—
Left of Six Hundred.

When can their glory fade?
Oh! the wild charge they made!
All the world wondered.
Honour the charge they made!
Honour the Light Brigade,
Noble Six Hundred!

ALFRED TENNYSON.

bat'tery, num'ber of can- non.	league, meas ure of length.	sun'dered, sep'arated.
blun'dered, made a mis- take.	plunged, swallowed.	thun'dered, roared.
dismayed', alarmed'.	reply', an'swer, objec'tion.	val'ley, hol'low.
	sa'bring, cut'ting down.	vol'leyed, bel'lowed.
	shat'tered, bro'ken.	won'dered, mar'velled.

¹ Some one had blundered.—The mistake made by Captain Nolan in explaining to Lord Lucan the order of Brigadier-General Airey is referred to in the preceding lesson, p. 243.

² Cossack.—This name was originally given to the warlike inhabitants of the Ukraine or Little Russia. They are gen-

uine Russians, their capital Kiev, on the Dnieper, having been for nearly three centuries the residence of the grand-dukes (880–1157 A.D.). Since the seventeenth century, they have enjoyed various privileges. They pay no taxes; but, instead, they are required to serve in time of war.

FRIENDS.

FRIEND after friend departs ;

Who hath not lost a friend ?

There is no union here of hearts

That finds not here an end :

Were this frail world our final rest

Living or dying, none were blest.

Beyond the flight of time,

Beyond this vale of death,

There surely is some blessed clime

Where life is not a breath,

Nor life's affections transient fire,

Whose sparks fly upward and expire.

There is a world above,

Where parting is unknown ;

A long eternity of love,

Formed for the good alone ;

And Faith beholds the dying here

Translated to that glorious sphere.—JAS. MONTGOMERY.

THE DISCOVERY OF THE SEA ROUTE TO INDIA.

THE Map of the World, until the end of the fifteenth century, exhibited only one hemisphere, and even that was not completely explored. The general outlines of Europe and Asia were correctly laid down, with the exception of the north-east corner of the latter, which was still a blank. The shores of Africa which are washed by the Mediterranean and the Red Sea were well known, as was also the Atlantic coast as far down as Cape Nun.¹ The remainder of the continent was a blank, which the geographers filled in at pleasure with dragons, serpents, and all manner of strange monsters.

It was not without an indefinable terror that European mariners spoke of the mysterious regions to the south, which lay beyond their ken. "He who would pass Cape Nun," said a current proverb, "will either return or not;" implying that if he had not the good sense to turn before he reached the cape, he would never have the chance of doing so afterwards. And so for long years the dreaded promontory stretched out into the waves, and all ships were careful to keep well to the north of it.

It was reserved for Portugal to tear aside the veil which hung over the greater part of Africa. Confined to a narrow strip of coast, and isolated from the Mediterranean by its position outside of the Strait of Gibraltar, it was natural that this little kingdom should turn its attention to the navigation of the Atlantic. Thanks to the wise provisions of various sovereigns, and to its admirable situation at the mouth of the greatest river in the Peninsula, Lisbon had, before the end of the fourteenth century, become an important seat of commerce.

A strong desire, however, possessed the Portuguese to find a new route to India. The Moors² had familiarized them with the luxuries of the East; but when a religious crusade was declared against these dusky neighbours, that source of supply was cut off. At the same time that this want was felt, great improvements were being made in the art of navigation.

The phenomenon of the magnet had long been known, but it was only about this period that it became more than a scientific toy, and was rendered useful for practical purposes in the shape of the mariner's compass.³ Armed with this simple little instrument, the seaman could now steer his course even when the stars, which had hitherto been his only guides, were hidden—he ceased to be afraid of venturing out of sight of land.

The impulse which this invention gave to navigation was

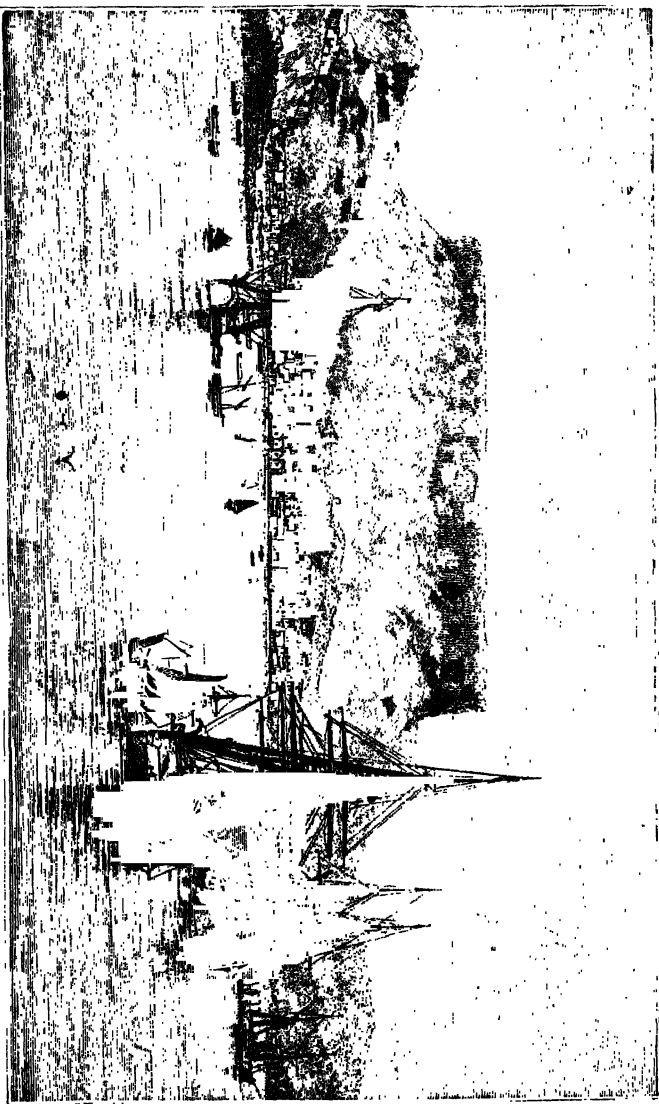


TABLE MOUNTAIN AND CAPE TOWN.

sudden and direct. "The compass twinkling on its card," it has been said, "was a beam from Heaven. Like a new revelation, the mysteries of an unknown world were unveiled, and the bold and noble were inspired to lead the way. Di'az doubles the Cape of Storms; De Ga'ma^(b) finds his course to the East Indies; Colum'bus^(c) treads the Baha'mas; and twelve years do not separate these discoveries."

Don Henry, "the Navigator," as he is usually called, the fifth son of King John of Portugal, 'enthusiastically' promoted the exploration of Africa. Impressed with a strong conviction that the continent did not end at Cape Nun, as represented on the maps, he 'organized repeated voyages of discovery, and taking up his abode on the promontory of Sa'gres, in the south of Portugal, he watched the white specks of sail sink below and rise above the horizon, as they went and came on their adventurous mission.

The first expedition was 'despatched about 1415; and when Prince Henry died, in 1463, the farthest point explored was Cape Verd and the adjoining group of islands. For no less than fifty-two years that 'enlightened man had 'devoted almost the whole of his time, thoughts, and revenues to this work; and yet the only fruit within his lifetime was the discovery of about fifteen hundred miles of coast.

Gradually creeping on from headland to headland along the coast, the Portuguese, under Barthol'omew Di'az, in 1486, seeking the land of Prester John,⁴ 'unconsciously doubled the southern extremity of Africa, and did not learn their success until they were returning 'disheartened, under the belief that their voyage had been a failure.

Landing in Talle Bay, Diaz planted the banner of St. Philip, under the shadow of Table Mountain,⁵ where a large and flourishing city has since sprung up. In order that future explorers might not be deterred by the name of Cape of Storms, which Diaz had 'conferred on the promontory, King Emanuel⁶ changed it to Cape of Good Hope.

The circumnavigation of the continent and the direct voyage to India were not 'accomplished till ten years later. Vas'co de Ga'ma, sailing from Lisbon with six ships on 8th July 1497, on the 20th May of the following year arrived at Cal'icut⁷ on the coast of Malabar'.

The problem of a new route to the East⁸ was now solved, and the Portuguese for a time entered on a brilliant career of conquest and commercial 'prosperity. In the short space of fifteen years they established their authority in India over the whole

coast from Or'muz⁹ to Ceylon', from Cape Comorin' to the Moluc'cas, and the entire commerce of the East was almost exclusively in their hands.

The foreign empire of Portugal was brilliant but brief. A single century saw its rise, 'culmination, and decline. Internal factions and revolts; the want of discipline; neglect of defences; a shameful system of 'rapine, by which 'individuals were enriched at the expense of the state; pride, selfishness, and avarice, were among the chief causes of its decay.

J. H. FYFE.

accomplished, overtaken.
complete'ly, entire'ly.
conferred', bestowed.
culmina'tion, ze'nith.
despatched', sent out.
devot'ed, dedicated.
disheart'ened, crest'fallen.
enlight'ened, intel'ligent.
enthusias'tically, zeal-
ously; ear'nestly.
exclu'sively, entire'ly.

exhib'ited, showed; dis-
played'.
explored', exam'ined.
famil'iarized, acquaint'ed.
improve'ments, advan'ces.
im'pulse, im'petus.
indefin'able, vague. [sons.
individ'uals, private per-
inspired', encour'aged.
myste'rious, se'cret; hid-
den.

organized', planned'.
phenom'enon, circum-
stance.
prom'ontory, head'land.
promot'ed, for'warded.
prosper'ity, success'.
provi'sions, meas'ures.
rap'ine, plun'der.
remain'der, resid'ue; rest.
uncon'sciously, unwit-
tingly.

¹ Cape Nun, on the west coast of Marocco, about six hundred miles from Gibraltar.

² The Moors, inhabitants of Maurita'nia (now the Barbary States) in the north of Africa. They were a branch of the Arabs or Moham'medans. They are also called Saracens; that is, Eastern people. The Moors conquered Spain in the eighth century; and a fresh inroad took place in the eleventh century, when the Moorish kingdom of Grana'da was founded. Bloody wars between the Moors and the Christians raged during the fourteenth and fifteenth centuries. Granada was taken by Ferdinand in 1492, and the Moorish power in Spain was completely overthrown.

³ The mariner's compass.—Its invention is ascribed to the Venetian navigator Marco Polo, in A.D. 1260; but the needle was floated on straws in water till 1302, when Flavio Gioia of Naples first suspended it freely on a fixed point.

⁴ Pres'ter John, that is, John the Priest, an imaginary Christian sovereign, supposed in the Middle Ages to rule in some distant Eastern country.

⁵ Table Mountain.—So called from its flat summit. It is situated on the peninsula between Table Bay and False Bay, and is 3000 feet high. The mass of white cloud which often covers it in summer is called the *Table-cloth*. The view on p. 249 represents Cape Town in its present state,—a city of 25,000 inhabitants.

⁶ King Eman'uel of Portugal, surnamed the Fortunate, reigned from 1495 till 1521.

⁷ Cal'icut, whence calico takes its name, a town on the south-west coast of Hindustan', 250 miles from Cape Comorin'.

⁸ A new route to the East.—The Cape route has now been to some extent superseded by the opening of the Suez Canal.

⁹ Or'muz, the strait joining the Gulfs of Persia and Oman'.

QUESTIONS.—What was the extent of the Map of the World, until the end of the fifteenth century? How far south were the Atlantic shores of Africa known? What country first explored the greater part of the African coast? Why was it natural for Portugal to turn its attention to the Atlantic? Who had familiarized the Portuguese with the luxuries of the East? What invention gave a great impulse to navigation? Who enthusiastically promoted the exploration of Africa? How much of the coast had been discovered when he died? Who was the first to double the Cape of Good Hope? When? What was its former name? Who discovered the passage to India round the Cape? When? How long did the foreign empire of Portugal last? What led to its fall?

GREECE.

HE who hath bent him o'er the dead,
 Ere the first day of death is fled—
 Before Decay's 'effacing fingers
 Have swept the lines where beauty lingers ;
 And marked the mild, angelic air,
 The 'rapture of repose that's there—
 The fixed, yet tender traits, that streak
 The 'languor of the placid cheek ;
 And—but for that sad, shrouded eye,
 That fires not, wins not, weeps not now ;
 And but for that chill, 'changeless brow,
 Where cold obstruction's 'apathy
 Appals the gazing mourner's heart,
 As if to him it could impart
 The doom he dreads, yet dwells upon ;—
 Yes, but for these, and these alone,
 Some moments, ay, one 'treacherous hour,
 He still might doubt the tyrant's power ;
 So fair, so calm, so softly sealed,
 The first, last look, by Death revealed !

Such is the aspect of this shore.
 'Tis Greece—but living Greece no more !¹
 So coldly sweet, so deadly fair,
 We start—for soul is wanting there.
 Hers is the 'loveliness in death
 That parts not quite with parting breath ;
 But beauty with that fearful bloom,
 That hue which haunts it to the tomb—
 Expression's last 'receding ray,
 A gilded halo hovering round decay—
 The farewell beam of feeling passed away !
 Spark of that flame, that flame of heavenly birth,
 Which gleams, but warms no more its cherished earth !

Clime of the 'unforgotten brave !
 Whose land from plain to mountain cave
 Was freedom's home, or glory's grave !
 Shrine of the mighty ! can it be,
 That this is all remains of thee ?
 Approach, thou 'craven, crouching slave :
 Say, is not this Thermopylæ ?²
 These waters blue that round you lave,
 O servile offspring of the free—
 Pronounce, what sea, what shore is this ?—
 The gulf, the rock of Sal'amis !³

These scenes, their story not unknown,
 Arise, and make again your own;
 Snatch from the ashes of your sires
 The 'embers of their former fires;
 And he who in the strife expires,
 Will add to theirs a name of fear
 That Tyranny shall quake to hear,
 And leave his sons a hope, a fame,
 They, too, will rather die than shame:
 For freedom's battle, once begun,
 Bequeathed by bleeding sire to son,
 Though baffled oft, is ever won.
 Bear witness, Greece, thy living page;
 Attest it, many a deathless age!
 While kings, in dusty darkness hid,
 Have left a nameless 'pyramid;
 Thy heroes, though the general doom
 Hath swept the column from their tomb,
 A nightier monument command—
 The mountains of their native land!
 There points thy Muse to stranger's eye
 The graves of those that cannot die!
 'Twere long to tell, and sad to trace,
 Each step from 'splendour to disgrace;
 Enough—no foreign foe could quell
 Thy soul, till from itself it fell;⁴
 Yes! self-abasement paved the way
 To villain bonds and despot sway.

BYRON. (6)

ap'athy, indifference.

attest, bear witness.

bequeathed, transmit'ted.

change'less, immov'able.

cra'ven, cowardly.

effā'ing, expung'ing.

em'bers, brands; cin'ders.

lan'guor, fee'bleness.

love'liness, beauty.

pyr'amid, mon'ument.

rap'ture, trans'port.

recēd'ing, withdraw'ing.

splen'dour, magnificence.

treach'erous, faith'less.

unforgot'ten, undying.

¹ Living Greece no more.—At the time referred to in the poem, Greece was entirely subject to the Turks, as it had been for nearly three centuries, during which everything like national life had been well-nigh trodden out. The struggle for independence, in which Byron sacrificed his life, began in 1821.

² Thermop'ylæ, the famous pass in Thesaly where Leonidas and his three hundred Spartans bravely fell before the

advānc'ing tide of Persians. (See Poem and Note, p. 254.)

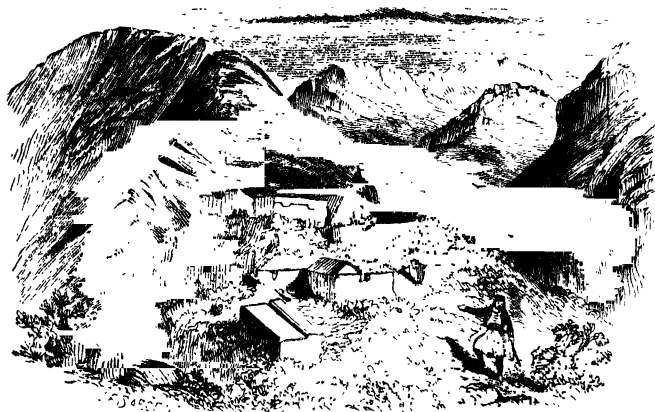
³ Sal'amis, an island (mod. *Koluri*) in the Saronic Gulf (the Sea of Ægina, or Athens), between which and the mainland of Attica the Persian fleet was defeated by Themistocles, 480 B.C.

⁴ From itself it fell—refers to the internal dissensions and civil wars which so weakened Greece that, in the second century B.C., she fell an easy prey to Rome.

THERMOPYLÆ.

[In the year 480 B.C., ten years after the Battle of Marathon, Xerxes,^(b) the son and successor of Darius,^(b) opened the Second Persian War by invading Greece in person, at the head of the greatest army the world has ever seen. Their numbers have been estimated at more than two millions of fighting men. This immense host, proceeding by the way of Thes'saly, had arrived without opposition at the narrow 'defile of Thermop'ylæ,' between the mountains and the sea, where the Spartan² Leonidas^(b) was posted with three hundred of his countrymen and some Thespian³ allies—in all fewer than a thousand men.

The Spartans were forbidden by their laws ever to flee from an enemy; they had taken an oath never to desert their standards; and Leonidas and his countrymen, and their few allies, prepared to sell their lives as 'dearly as possible. Bravely meeting the attack of the Persian host, and retreating into the narrowest part of the pass as their numbers were thinned by the storm of



PASS OF THERMOPYLÆ, WITH TOMBS OF THE SPARTANS

arrows, and by the living mass that was hurled upon them, they fought with the valour of desperation until every one of their number had fallen. A monument was afterwards erected on the spot, bearing the following inscription:—"Go, stranger, and tell at Lacedæmon that we died here in obedience to her laws."]

THEY fell 'devoted, but undying;
 The very gale their name seemed sighing;
 The waters 'murmured of their name,
 The woods were peopled with their fame;
 The silent pillar, lone and gray,
 'Claimed 'kindred with their sacred clay;
 Their spirits wrapped the dusky mountain,
 Their 'memory sparkled o'er the fountain;—
 The meanest rill, the mightiest river,
 Rolls 'mingling with their fame for ever.
 Despite of every yoke she bears,
 That land is glory's still, and theirs!

'Tis still a watch-word to the earth;—
 When man would do a deed of worth,
 He points to Greece, and turns to tread,
 So 'sanctioned, on the tyrant's head;
 He looks to her, and rushes on,
 Where life is lost, or freedom won.

BYRON.^(b)

claimed, demand'ed.
 defile', pass.
 despera'tion, despair'.
 devôt'ed, dedicated.
 es'timated, calculated.

forbid'den, prohib'ited.
 invād'ing, march'ing into.
 kin'dred, rela'tionship.
 mem'ory, remem'brance.
 min'gling, mixing.

mur'mured, bab'bled.
 opposi'tion, obstruc'tion.
 retreat'ing, retir'ing.
 sanc'tioned, approved'.
 stand'ards, col'ours.

¹ Thermop'ylæ, a pass between Thes'saly and Locris, provinces of ancient Greece, and between Mount Æta and the sea.

² Spar'tan, a native of Sparta, the capital of Laco'nia, or Lacedæmo'nia, in the Peloponne'sus (the Morea). The Spartans were a race of soldiers, and cultivated

neither commerce nor any of the peaceful arts; hence the modern word *Spartan*, meaning hardy, enduring, dauntless.

³ Thes'pian, belonging to Thes'piæ, a city of Bœo'tia (Northern Greece), south-west of Thebes. Between 600 and 700 of its citizens are said to have perished with the Spartans at Thermopylæ.

PAUL AT ATHENS.

THERE was something, to such an one as Paul,^(b) that was spirit-stirring in the mighty 'array that he had to cope with at Athens.¹ He was full of courage and of hope. In the cause of Christ he had gone on 'conquering, and would trust that, even here, he should conquer. He felt that it was enough, even if he saved but one, to 'recompense the effort and the peril—that it was enough, if, by his faithfulness, he only delivered his own soul.

But his was a mind to look and aim at more than this. He felt the splendour of the triumph there would be in levelling the wisdom and the idolatry of Athens at the foot of the Cross.

He burned to make Olym'pus² bow its awful head, and cast down its 'coronet of gods, at His feet who dwelt in Zion; and the pæans of Bac'chus and Apol'lo³ were, in his ear, but preludes to the swelling "song of Moses and of the Lamb."

Animated by such feelings, we may now regard Paul, in what must have been one of the most interesting moments of even his eventful life, preparing himself on the Hill of Mars⁴ to address an 'auditory of Athenians on behalf of Christianity. He would feel the imposing associations of the spot on which he stood, where, in the darkness of night, and under the canopy of heaven, justice had been 'administered in its most awful form, by characters the most venerable. Accompanied as it was with the solemnities of religion, it was attended with an authority which public opinion 'assimilated rather with the decrees of conscience and of the gods than with the ordinary power of human tribunals. ✓

He would look around on many an immortal 'trophy of architect and sculptor; where genius had triumphed, but triumphed only in the cause of that idolatry to which they had been dedicated, and for which they existed. And beyond the city, clinging around its temples, like its inhabitants to their 'enshrined idols, would open on his view that lovely country and the sublime ocean, and the serene heavens bending over them, and bearing that testimony to the Universal Creator which man and man's works withhold.

With all would Grecian glory be connected—the brightness of a day that was closing, and of a sun that had already set, where 'recollections of grandeur faded into 'sensations of melancholy. And he would gaze on a thronging auditory, the representatives, to his fancy, of all that had been, and of all that was; and think of the intellects with which he had to 'grapple, and of the hearts in whose very core he aimed to plant the barbed arrows of conviction.

There was that Multitude, so acute, so inquisitive, so polished, so athirst for novelty, and so impressible by eloquence; yet with whom a 'barbarian accent might break the charm of the most persuasive tongue; over whom their own oligarchy of orators would soon reassert their dominion, in spite of the invasion of a stranger; and with whom taste, feeling, and habit would throw up all their barriers against the eloquence of Christianity. There would be the Priest, 'astonished at an attempt so daring; and as the speaker's design opened on his mind, anxiously, and with alternate contempt and rage, measuring the strength of the Samson⁵ who thus grasped the pillars of his temples,

threatening to whelm him, his altars, and his gods beneath their ruins.

There would be the Stoic,⁶ in the coldness of his pride, looking 'sedately down, as on a child playing with children, to see what new game was afloat, and what trick or toy was now produced for wonderment. There the Epicurean,⁷ tasting, as it were, the preacher's doctrine, to see if it promised aught of 'merriment; just lending enough of idle attention not to lose amusement should it offer; and venting the full explosion of his ridicule on the resurrection of the dead.

There the Sophist,⁸ won, perhaps, into something of an approving and 'complacent smile by the dexterity of Paul's introduction;⁹ but finding, as he proceeded, that this was no mere show of art or war of words; and 'vibrating between the habitual love of entangling, bewildering, and insulting an opponent, and the repulsiveness which there always is to such men in the language of honest and zealous conviction. There the Slave, timidly crouching at a distance to catch what stray sounds the winds might waft to him, after they had reached his master's ears, of that doctrine, so strange and blessed, of man's 'fraternity. And there the young and noble Roman, who had come to Athens for education;—not to sit like a humble scholar at a master's feet, but, with all the pride of Rome upon his brow, to accept what artists, poets, and philosophers could offer as their 'homage to the lords of Earth.

If for a moment Paul was overwhelmed by the feeling,—in the circumstances, perfectly natural,—that he was the central object of such a scene and such an assemblage, there would rush upon his mind the majesty of Jehovah; and the words of the glorified Jesus; and the thunders that had struck himself to the earth on the road to Damascus;¹⁰ and the sense of former efforts, conflicts, and successes; and the approach of that judgment to come, whose righteousness and 'universality it was now his duty to 'announce.

'Unappalled and collected, he began :—"Ye men of Athens,¹¹ I perceive that in all things ye are too 'superstitious. For as I passed by, and beheld your devotions, I found an altar with this inscription, TO THE UNKNOWN GOD. Whom therefore ye ignorantly worship, him declare I unto you. God that made the world and all things therein, seeing that he is Lord of heaven and earth, dwelleth not in temples made with hands; neither is worshipped with men's hands, as though he needed any thing, seeing he giveth to all life, and breath, and all things; and hath made

of one blood all nations of men for to dwell on all the face of the earth."

W. J. Fox.

admin'istered, dispensed'.
an'imated, inspired'.
announce', proclaim'.
array', display'.
assim'ilated, iden'tified.
aston'ished, surprised'.
au'ditory, au'dience.
barba'rian, foreign.
compla'cent, satisfied.

con'quering, tri'umphing.
cor'onet, crown.
enshrined', con'secrated.
frater'nity, broth'erhood.
grap'ple, struggle.
hom'age, trib'ute of praise.
mer'rimment, amuse'ment.
recollec'tions, remem'-
brances.

rec'ompense, repay'.
sedate'ly, calm'ly
sensa'tions, pangs
superst'i'tious, idol'atrous.
tro'phy, achieve'ment.
unappalled', undismayed'.
universal'ity, comprehen'-
siveness.
vi'brating, os'cillating.

¹ At Athens.—Paul's visit to Athens was made in what is known as his second missionary tour.—A. D. 51–54. Driven by persecution from Philippi and from Thessalonica, he took refuge in Berea, where for a time his ministry was successful; but to avoid a storm of hostility which seemed to be gathering there also, he secretly left Berea and went to Athens. (*Acts*, xvii.)

² Olym'pus, a famous mountain on the borders of Macedonia and Thessaly, which, probably from its great height, was regarded as the abode of the gods. It is here used as the symbol of the whole system of Greek mythology.

³ Pæ'ans of Bac'chus and Apol'lo.—A *pæan* is a song of praise, originally in honour of Apollo, the god of culture and art, from whose epithet *Painan* the word *pæan* is taken. It was afterwards applied to hymns in praise of other gods, and to the revels of the worshippers of Bacchus, the god of wine.

⁴ Hill of Mars, a translation of the Greek name Areopagus, the seat of the Areopagites, the supreme court of Athens. This court, for the trial and punishment of murderers and persons charged with impieties and immoralities, held its sessions in the open air; and during the darkness of night, because justice should be blind to everything but facts. A little to the south-east rose the steep height of the Acropolis, or citadel, on whose level summit were crowded more and richer idolatrous structures than on any other equal space in the world. There stood the temples of Pal'las and Nep'tune, the great bronze statue of the former, and, above all, the Par'thenon, the glory of Grecian architecture.

⁵ The Samson.—Samson was the great military Judge and deliverer of Israel; who, having been taken and blinded by the Philistines, destroyed himself and the

temple and lords of the Philistines, by pulling down the pillars that supported the house. The heathen priest at Athens is supposed to have regarded Paul as a moral Samson, who threatened to destroy his temples and altars by sheer force of overwhelming argument.

⁶ The Sto'ic.—The Stoics, followers of Zeno,^(b) were so called from *stoa*, the Greek word for a porch, because their founder had taught his disciples in a portico of Athens. Pride was their great characteristic. They enforced a sort of stern virtue, and an indifference both to pleasure and to pain, which led to some noble deeds. In spirit they much resembled the Jewish Pharisees.

⁷ The Epicure'an.—The Epicureans, —followers of Epicu'rus,^(b) who died B.C. 271, —were the children of pleasure. They were practical atheists, and unmeasured scoffers. The rule of life laid down by their founder was the pursuit of pleasure properly regulated and controlled. But his followers forgot the regulation and control which he enjoined, and pursued pleasure for its own sake.

⁸ The Soph'ist.—The Sophists were an inferior class of teachers in Athens, who dealt in verbal niceties and quibbles. Ar'istotle^(b) used the word in the sense of a false teacher of philosophy. The Sophists were instrumental in procuring the death of Soc'rates,^(b) 399 B.C.

⁹ The dexterity of Paul's introduction.—Paul was peculiarly skilful and happy in adapting his addresses to the circumstances of his audience. In this address, for example, he struck a key-note which would at once arrest the proud and idolatrous Athenians, by telling them how "superstitious" (that is, zealous for the gods) they appeared to be, judging by the number of magnificent temples by which he was surrounded. When preaching in

the synagogue at Antioch, on the other hand, he rapidly sketched God's dealings with Israel, and preached Christ to them as the Son of David (*Acts*, xiii. 16-23). When addressing Agrippa, a highly educated Syrian prince, he appeals to him, saying, "King Agrippa, believest thou the

prophets? I know that thou believest." (*Acts*, xxvi. 27.)

¹⁰ On the road to Damascus,—on the occasion of Paul's conversion. (See *Acts*, ix. 3-9.)

¹¹ Ye men of Athens. (See *Acts*, xvii. 22-26.)

QUESTIONS.—What feelings would encourage Paul to preach boldly at Athens? Where did he address the Athenians? What "imposing associations" would the place suggest to his mind? What would he see from that spot? What classes of people would be represented in his audience? By what would the Sophist be won at first? What was that introduction?

EVIDENCES OF DESIGN IN CREATION.

WHEN we observe a number of separate forces acting in union and harmony, we must believe that there has been a designing mind bringing them together and causing them to coöperate. When we see these agencies working in happiest association to produce innumerable effects of a 'beneficent character; when we find them consenting and consorting throughout thousands or myriads of years or geological ages,—the evidence is felt to be overwhelming beyond the power of human calculation.

"How often," asks Tillotson,⁽⁶⁾ "might a man, after he had jumbled a set of letters in a bag, fling them out upon the ground before they would fall into an exact poem, yea, or so much as make a good discourse in prose? And may not a little book be as easily made by chance as this great volume of the world?—How long might a man be 'sprinkling colours upon canvas, with a careless hand, before they would happen to make the exact picture of a man? And is a man easier made by chance than this picture?"

"How long might twenty thousand blind men, which should be sent out from the several remote parts of England, wander up and down before they would all meet upon Salisbury Plain, and fall into rank and file in the exact order of an army? And yet this is much more easy to be imagined than that the innumerable blind parts of matter should rendezvous¹ themselves into a world."

Every manual labourer may see something analogous to the art by which he earns his livelihood, operating among the natural objects by which he is surrounded.

The sailor may discover the 'peculiarities of his craft among marine animals. Thus, among the lower tribes, he has observed a jelly-fish—called by him the Portuguese man-of-war—

setting up a sail which consists of a crest 'surmounting the bladder. He may notice, too, how the mussel and pinna² anchor themselves by means of threads of a horny material. The tail of the fish, it is well known, acts as a scuttle, enabling its possessor to plough its way through the deep.

The web-foot of the swimmers is an example of what is called "feathering the oar:"³ when pushed forward, the web and toes collapse. The leg (usually so called) of the guillemot⁴ and of divers is compressed 'laterally, presenting a knife-edge before and behind, and thus gives less resistance in the fore and back stroke. It is worthy of being mentioned, as illustrating the same point, that the whale's tail 'collapses in the upward but expands in the downward stroke.

The shepherd knows how much care and watchfulness are necessary in order to protect his flocks from the wild⁵ beasts which attack them, and is thus led to admire the instincts of those animals, such as the deer, which set a watch to give a signal of danger. The hunter knows how much cunning he must exercise in order to come within reach of the wild animals 'pursued by him, and should not withhold a feeling of wonder when he observes how their instincts lead the brutes to show such 'dexterity in avoiding their natural enemies.

We find that those liable to be chased as prey, often take the colour of the ground on which they habitually feed. Rifle-men are invariably dressed in the hue which is deemed least 'conspicuous, and which is best fitted for concealment; and is there not an equally clear proof of design furnished by the circumstance that fishes are often of the colour of the ground over which they swim, and that wild animals are not unfrequently of the colour of the covert⁶ in which they hide themselves? The red grouse and red deer are of the colour of the heath on which they feed; whereas the lapwing and curlew, themselves and their eggs, take the hue of the pasture among which they are usually found.

Speaking of the ptarmigan,⁵ the late Mr. Thompson says: "We hardly draw on the imagination by viewing its plumage as an 'exquisite 'miniature of the seasonal changes which the mountain summit undergoes;—a miniature drawn, too, by a Hand that never errs! In summer we look upon the beautiful mixture of gray, brown, and black, as resembling the three 'component parts of ordinary granite—feldspar, mica, and horn-blende⁶—among the masses of which the ptarmigan usually resides. Late in autumn, when snows begin to fall about the

lofty summits, and partially to cover the surface of the rocks, we find the bird pied⁷ with white; and in winter, when they present a 'perfect chrysolite,'⁸ it is almost wholly of the same pure hue." Nor is it unworthy of being noted, that whitish or grayish colours, which are known to be the warmest, prevail in the covering of animals in the arctic regions.

The builder may easily perceive that the woody structure of plants and the bones of animals are constructed on architectural principles, being strengthened where weight has to be supported and pressure resisted, and becoming more slender where lightness is required. The form of the bole of a tree, and the manner in which it fixes itself into the ground, so as to be able to face the storms of a hundred winters, are said to have yielded some suggestions to the celebrated engineer, Smeaton,^(b) in the construction of the Eddystone Light-house.⁹ The architect of the Crystal Palace¹⁰ confessed that he derived some of the ideas embodied in that structure from observing the wonderful provision made for bearing up the very broad leaf of the beautiful lily,¹¹ which has been brought within these few years from the marshes of Guiana to adorn our conservatories.

Every joint in the animal frame can be shown to be exactly suited to the function which it has to perform. In flesh-eating animals, where strength is the chief requisite in the lower jaw, there is a simple hinge-joint of great power; whereas in herbivorous species, which have to grind hard vegetable matter, the joint admits of free motion in all directions. Where motion in one direction is all that is required, we have a common joint, as in the fingers; where motion all round is necessary, we have, as at the shoulder and hip, the ball-and-socket joint, admitting of a rotatory motion round a ball.

In some parts of the animal frame, a single bone is all that is required, and more would injure the strength; in other parts, as in the fore-arm, a kind of rotatory motion is furnished by two bones, a radius and an ulna,¹² so adjusted as to move to some extent round each other.

The tubes and pipes which conduct water and gas through all the streets and dwellings of a great city, are not such ingenious contrivances as the veins and arteries which convey the blood to and from every extremity of the frame. The means by which water is forced to rise in a pump are not so wonderful as those by which, proceeding on a different principle, fluid is made to mount in the plant to the most distant twig and leaf. We construct valves to allow fluids to pass in one direction, but to pre-

vent them from flowing back in the opposite direction ; but before man devised such agency they were already in his own veins ; and it was upon noticing them that Harvey,^(b) proceeding, as he tells us, on the principle that they were there to serve a purpose, was led to the discovery of the circulation of the blood.

It is a circumstance of great significance, that parts of animals which, to superficial observers, might seem useless, or even inconvenient, have been found, in the progress of discovery, to serve most important ends in the economy of life. The hump of the camel might readily be regarded as a very unseemly encumbrance, and we find even the distinguished naturalist Buffon^(b) speaking of these humps, and of the callous pads on the legs of that animal, as marks of degradation and servitude. A little patient investigation, however, suffices to show that these parts of their frame, like every other, fit these useful creatures for the purposes served by them in the regions which they inhabit.

It has often been remarked, that the abundant supply of fluid laid up in the cells of one of the stomachs, is a beautiful provision for enabling the animal to endure a long continuance of thirst ; and it can be shown that the enlargement of their feet, with their convex soles, allows them to tread easily on the loose, yielding sand of the desert ; that the callosities or pads on their legs permit them to lie down and repose on scorching surfaces ; and that their humps are supplies of superabundant nourishment provided for their long journeys, so that, when deprived of other food, their frames feed on this nutriment,—and it has been observed, that at the close of a long journey their humps have been much diminished in size.

Such facts as these go to prove that it is our own ignorance and presumption which lead us to complain of the inconveniences of nature ; and that a little more knowledge, and, better still, a little more humility and patience, would lead us to discover and to acknowledge, that there are admirable wisdom and benevolence even in those parts of God's works which may seem to be useless, or even injurious.

J. M'COSH.

beneficent, kind.
calcula'tion, estimate.
cal'ous, hard.
celebrated, fa'mous.
collaps'es, contracts'.
compo'nent, constit'uent.
conspic'uous, prom'inent.
contriv'ances, devi'ces.
coö'perate, work togeth'er.

dexter'ity, cleve'erness.
dimin'ished, reduced'.
encum'brance, bur'den.
ex'quisite, beau'tiful.
herbiv'orous, herb'-eating.
investiga'tion, inquiry.
lat'erally, from side to side.
min'iature, reduc'tion.
peculiar'ities, feat'u'eres.

prin'ciples, rules.
pursued', chased'.
req'uisite, essen'tial.
ro'tatory, revol'ving.
signif'icance, force.
sprin'gling, scat'tering.
superabun'dant, spare.
surmount'ing, o'vertop'ping.

¹ *Ren'dezvous* (*rang'-dā-voō*), assemble.

² *Pin'na*, a large shell-fish, somewhat like the mussel; called also the *wing-shell*, from the likeness of its shell to the wing of a bird.

³ "Feathering the oar," turning the blade of the oar horizontally in carrying it back, so as to present no resistance to wind or surf.

⁴ *Guil'lemot*, a sea-bird, allied to the penguins, auks, and divers; found in the northern parts of both hemispheres.

⁵ The *ptarmigan* (*tar'-me-gan*), called also the white grouse, from the colour it assumes in winter. It is found only in lofty situations and in northern countries.

⁶ *Feld'spar*, *mi'ca*, and *horn'blende*, the three components of common granite. *Feldspar*, or *felspar*, is a crystalline mineral, softer than quartz. With this the gray colour of the bird corresponds. *Mica* consists of a number of thin layers, and has long been used as a substitute for glass, especially in Russia. To it the brown feathers of the bird are compared. *Hornblende* is a common mineral of a blackish-green colour.

⁷ *Pied*, variegated, spotted.

⁸ *Chrys'olite*, a bright jewel, of a yellowish or greenish hue. The expression "Perfect chrysolite," (which is quoted from Shakespeare's *Othello*), is meant to describe

the appearance of mountains in winter, when the sun shines upon their snow-clad summits.

⁹ *Ed'dystone Light-house*, ten miles from the coast of Cornwall, and fourteen from Plymouth.

¹⁰ The architect of the *Crystal Palace*—Sir Joseph Paxton, an eminent English gardener. When acting as chief gardener to the Duke of Devonshire at Chatsworth, he had erected a conservatory of iron and glass which covered an acre. This suggested the plan for the Great Exhibition of 1851 at London, which he submitted to the building committee, and which introduced a new style of architecture, since largely adopted in similar undertakings. Paxton was born in 1803; died in 1865.

¹¹ *Lily*—the *Victoria Regia*, a magnificent water-lily, discovered in Guiana (South America) in 1838, by Sir Robert Schomburgk, the distinguished naturalist, and named after Queen Victoria.

¹² *Ra'dius* and *ul'na*.—The *fore-arm* (between the elbow and the hand) consists of two bones; the *radius*, or exterior bone, on the thumb-side of the arm [Lat. *radius*, the spoke of a wheel]; and the *ulna*, the larger and interior bone, which forms, with the arm proper, the elbow joint [Lat. *ulna*, the elbow].

QUESTIONS.—What are the proofs of a designing mind in any work? By what comparisons does Tillotson enforce this? What remarkable adaptation is there in the leg of swimming birds? With what natural means of protection are animals chased as prey provided? What is remarkable in the case of the ptarmigan? Mention cases in which builders have taken their ideas from natural objects. Give instances of adaptation in the joints of the body. What led Harvey to discover the circulation of the blood? Give examples of parts of animals which seem useless, being really most useful contrivances. What lesson is to be learned from this?

THE STORY OF HORATIUS.

A LEGEND OF ANCIENT ROME.

THE early history of Rome, as recorded by Livy^(b) and other Latin writers, was probably compiled from legendary poems that had been transmitted from generation to generation, and often rehearsed at the banquets of the great. The historian Macaulay^(b) has aimed at reconstructing some of these poetic legends, which he has given to the world under the title of *Lays of Ancient Rome*. As a specimen of these beautiful and stirring poems, the "Story of Horatius" is here given.

It is stated by all the Latin historians, that, a few years after the expulsion of the Tarquins¹ for their despotism and crimes, the neighbouring Etrus-

cans,^c to which nation they belonged, endeavoured to restore the tyrants to power, and came against Rome with an 'overwhelming force. The Romans, repulsed at first, fled across a wooden bridge over the Tiber, when the Roman Consul^s ordered the bridge to be destroyed, to prevent the enemy from entering the city. The 'continuation of the legend is supposed to be narrated by one of the Roman minstrels, at a period one hundred years later than the events recorded:—

But the Consul's brow was sad,
And the Consul's speech was low,
And darkly looked he at the wall,
And darkly at the foe.
"Their van will be upon us
Before the bridge goes down ;
And if they once may win the bridge,
What hope to save the town ?"

Then out spake brave Horatius,
The captain of the gate :
"To every man upon this Earth
Death cometh, soon or late ;
And how can man die better
Than facing fearful odds,
For the ashes of his fathers,
And the temples of his gods !

"Hew down the bridge, Sir Consul,
With all the speed ye may ;
I, with two more to help me,
Will hold the foe in play.
In you 'strait path a thousand
May well be stopped by three ;
Now, who will stand on either hand,
And keep the bridge with me ?"

Then out spake Spurius Lartius,—
A Ramnian^d proud was he :
"Lo, I will stand at thy right hand,
And keep the bridge with thee."
And out spake strong Herminius,—
Of Titian^e blood was he :
"I will abide on thy left side,
And keep the bridge with thee."

"Horatius," quoth the Consul,
"As thou say'st, so let it be."
And straight against that great array
Forth went the 'dauntless three.

Meanwhile the Tuscan army,
Right glorious to behold,

Came flashing back the noonday light,
 Rank behind rank, like 'surges bright
 Of a broad sea of gold.
 Four hundred trumpets sounded
 A peal of warlike glee,
 As that great host, with 'measured tread,
 And spears advanced, and ensigns spread,
 Rolled slowly toward the bridge's head,
 Where stood the dauntless three.

The three stood calm and silent,
 And looked upon the foes,
 And a great shout of laughter
 From all the 'vanguard rose :
 And forth three chiefs came spurring
 Before that mighty mass ;
 To earth they sprang, their swords they drew,
 And lifted high their shields, and flew
 To win the narrow pass.

But the scorn and laughter of the Etruscans were soon changed to wrath and curses, for their chiefs were quickly laid low in the dust at the feet of the "dauntless three."

But now no sound of laughter
 Was heard among the foes.
 A wild and 'wrathful 'clamour
 From all the vanguard rose.
 Six spears' length from the entrance
 Halted that mighty mass,
 And for a space no man came forth
 To win the narrow pass.

But hark ! the cry is "Astur :"
 And lo ! the ranks 'divide,
 And the great lord of Lur⁵
 Comes with his stately stride.
 Upon his ample shoulders
 Clangs loud the fourfold shield,
 And in his hand he shakes the brand
 Which none but he can wield.

The proud Astur advances with a smile of 'contempt for the three Romans, and turns a look of scorn upon the 'finching Tuscans.

Then, whirling up his broadsword
 With both hands to the height,
 He rushed against Horatius,
 And smote with all his might.
 With shield and blade Horatius
 Right 'deftly turned the blow.

The blow, though turned, came yet too nigh;
 It missed his helm, but gashed his thigh:
 The Tuscans raised a joyful cry
 To see the red blood flow.

He reeled, and on Herminius
 He leaned one breathing-space;
 Then, like a wild-cat mad with wounds,
 Sprang right at Astur's face.
 Through teeth and skull and helmet,
 So fierce a thrust he sped,
 The good sword stood a handbreadth out
 Behind the Tuscan's head!

And the great lord of Luna
 Fell at that deadly stroke,
 As falls on Mount Alvernus⁶
 A thunder-smitten oak.
 Far o'er the 'crashing forest
 The giant arms lie spread;
 And the pale 'augurs, muttering low,
 Gaze on the blasted head.

In the meantime the axes had been busily plied; and while the bridge was tottering to its fall, Lartius and Herminius regained the opposite bank in safety. Horatius remained facing the foe until the last timber had fallen, when, weighed down with armour as he was, he "plunged headlong in the tide."

No sound of joy or sorrow
 Was heard from either bank;
 But friends and foes, in dumb surprise,
 With parted lips and straining eyes,
 Stood gazing where he sank:
 And when beneath the surges
 They saw his crest appear,
 All Rome sent forth a 'rapturous cry,
 And even the ranks of Tuscany
 Could scarce forbear to cheer.

But fiercely ran the current,
 Swollen high by months of rain:
 And fast his blood was flowing;
 And he was sore in pain,
 And heavy with his armour,
 And spent with changing blows:
 And oft they thought him sinking,
 But still again he rose.

"Curse on him!" quoth false Sextus,
 "Will not the villain drown?"

But for this stay, ere close of day
 We should have 'sacked the town !"—
 "Heaven help him !" quoth Lars Porsena,¹
 "And bring him safe to shore ;
 For such a 'gallant feat of arms
 Was never seen before."

And now he feels the bottom ;
 Now on dry earth he stands ;
 Now round him throng the fathers,
 To press his gory hands ;
 And now with shouts and clapping,
 And noise of weeping loud,
 He enters through the river-gate,
 Borne by the joyous crowd.

Then follows an account of the rewards which a grateful people 'bestowed upon the hero. The minstrel thus 'concludes the legend:—

When the good-man mends his armour,
 And trims his helmet's plume ;
 When the good-wife's shuttle merrily
 Goes flashing through the loom ;
 With weeping and with laughter
 Still is the story told,
 How well Horatius kept the bridge
 In the brave days of old.

au'gurs, sooth'sayers.
 bestowed', conferred'.
 clam'our, shout'ing.
 compiled', composed'.
 concludes', clōses; ends.
 contempt', disdain'.
 continua'tion, se'quel.
 crash'ing, shat'tering
 daunt'less, coura'geous.

deft'ly, cleve'ly.
 des'potism, tyr'anny.
 divide', open up.
 flinch'ing, yield'ing.
 gal'lant, hero'ic.
 meas'ured, reg'ular.
 overwhelm'ing, overpow'-
 ering.
 rap'turous, joy'ous.

reconstruct'ing, rebuild'-
 ing.
 record'ed, narrat'ed.
 rehearsed', recit'ed.
 sacked, pill'aged.
 strait, nar'row.
 sur'ges, waves.
 van guard, front.
 wrath'ful, an'gry.

¹ The Tar'quins.—Tarquin'us Super'bus, the seventh and last king of Rome, was the son of Tarquin'us Pris'cus, the fifth king. His efforts to acquire despotic power made for him many foes; and the crimes of his son Sextus (the "false Sextus" of the lay) infuriated the people, who rose under Jun'ius Bru'tus, expelled the Tarquins from Rome, and abolished the monarchy for ever. This was in 509 B.C.

² Etrus'cans, the people of Etruria, or Tuscia, a country in Central Italy, with the Tiber as its southern boundary, and including the whole of modern Tuscany. Tarquin'us Super'bus was a native of Tarquinii, a town in Etruria, sixty miles from

Rome; and he had gone to Rome as an adventurer in the reign of Aſci'us Mar'tius, in whose favour he obtained a high place. Left by that king guardian to his sons, Tarquin set them aside and ascended the throne himself.

³ Roman Consul.—After the abolition of monarchy, Rome was ruled by two Consuls (that is, Colleagues), elected annually.

⁴ Ram'nian . . . Ti'tian.—The Patricians, or true Roman citizens, consisted of three tribes,—the *Ram'nes*, a Latin colony said to have been founded by Romulus, on the Pal'atine Hill; the *Ti'ties*, or Sabine settlers, on the Quiri'nal Hill; and the *Lu'ceres*, or Etruscans, on the Cæ'lian Hill.

⁶ **Luna**, a town on the northern frontier of Etruria, near which were famous white marble quarries,—now those of Carrara.

⁷ **Mount Alver'nus**—probably Mount Albur'nus, near the ancient *Pestum* (now magnificent ruins), and south-east of Salerno.

⁷ **Lars Por'sena**.—*Lars* was a common Etruscan first-name, generally given to the eldest son, whence it came to signify Lord. A younger son was called *Aruns*. Porsena was king of Clu'sium in Etruria. He ultimately subdued Rome, and exacted tribute from the citizens.

ROMAN GIRL'S SONG.

ROME, Rome! thou art no more
As thou hast been!
On thy seven hills of yore¹
Thou satst a queen.

Thou hadst thy 'triumphs then
Purpling the street;²
Leaders and sceptred men
Bowed at thy feet.

They that thy 'mantle wore,
As gods were seen—
Rome, Rome! thou art no more
As thou hast been!

Rome! thine 'imperial brow
Never shall rise:
What hast thou left thee now?—
Thou hast thy skies!

Blue, deeply blue, they are,
Gloriously bright!
•Veiling thy wastes afar
With coloured light.

Thou hast the sunset's glow,
Rome, for thy 'dower,
•Flushing tall cypress-bough,
Temple and tower!

And all sweet sounds are thine,
Lovely to hear;
While night o'er tomb and 'shrine
Rests darkly clear.

Many a 'solemn hymn,
By starlight sung,
Sweeps through the arches dim,
Thy wrecks among.

Many a flute's low swell
 On thy soft air
 Lingers, and loves to dwell
 With summer there.

Thou hast the South's rich gift
 Of sudden song,
 A charmed fountain, swift,
 Joyous, and strong.

Thou hast fair forms that move
 With queenly tread;
 Thou hast proud fanes above
 Thy mighty dead.

Yet wears thy Tiber's shore
 A mournful mien;—
 Rome, Rome! thou art no more
 As thou hast been!

FELICIA HEMANS.^(b)

charm'ed, bewitched.
 dow'er, portion.
 fanes, temples.
 flush'ing, suffus'ing.

impe'rial, sov'reign.
 lin'gers, loit'ers.
 man'tle, garment.
 mien, aspect.

shrine, altar.
 sol'emn, relig'ious.
 tri'umphs, exulta'tions.
 veil'ing, cover'ing.

¹ On thy seven hills of yore.—Rome was built on seven hills, and is therefore called by poets "The seven-hilled city." At the time of its greatest glory, the walls of Rome were nearly twenty miles in circumference.—*Of yore* means formerly; in time long past.

² Purpling the street.—Purple was the

royal colour of the ancients, especially the famous and costly Tyrian purple. In imperial Rome it was the emblem of sovereign power, and would consequently predominate in a Roman triumph, when "leaders and sceptred men" were led in procession behind the chariot of the conqueror.

REGULUS BEFORE THE ROMAN SENATE.

[In the year 263 before Christ the First Punic War¹ began; and, after it had continued eight years with varied success, the Romans sent the Consul Regulus, at the head of a large army, to carry the war into Africa. On the passage across the Mediterranean, the Carthaginian fleet, bearing not less than one hundred and fifty thousand men, was met and defeated; but in the following year, in a battle on land, the Romans were defeated with great loss, and Regulus himself, being taken prisoner, was thrown into a dungeon. Five years later, the Carthaginians were in turn defeated in Sicily, with a loss of twenty thousand men, and the capture of more than a hundred of their elephants, which they had trained to fight in the ranks.]

It was then that the Carthaginians sent an embassy to Rome with proposals of peace. Regulus was taken from his dungeon to accompany the embassy, the Carthaginians trusting that, weary of his long captivity, he would urge the Senate to accept the proffered terms; but the inflexible Roman persuaded the Senate to reject the proposals and continue the war, assuring his countrymen that the resources of Carthage were nearly exhausted. Bound by his oath to return if peace were not concluded, he volun-

tarily went back, in spite of the prayers and 'entreaties of his friends, to meet the fate which awaited him. It is generally stated that after his return to Carthage he was tortured to death by the 'exasperated Carthaginians. Thus he spoke to the Senate :—]

Urge me no more ; your prayers are vain,
 And even the tears ye shed :
 When I can lead to Rome again
 The bands that once I led ;
 When I can raise your legions slain
 On 'swarthy Libya's² fatal plain,
 To vengeance from the dead,
 Then will I seek once more a home,
 And lift a freeman's voice in Rome !

Accurs'd moment ! when I woke
 From faintness all but death,
 And felt the coward conqueror's yoke
 Like 'venomed serpent's wreath
 Round every limb !—if lip and eye
 Betrayed no sign of agony,
 Inly I cursed my breath :
 Wherefore, of all that fought, was I
 The only wretch that could not die ?

To darkness and to chains 'consigned,
 The captive's fighting doom,
 I recked not ;—could they chain the mind,
 Or plunge the soul in gloom ?
 And there they left me, dark and lone,
 Till darkness had familiar grown ;
 Then from that living tomb
 They led me forth, I thought, to die ;—
 Oh ! in that thought was 'ecstasy !

But no ! kind Heaven had yet in store
 For me, a conquered slave,
 A joy I thought to feel no more,
 Or feel but in the grave.
 They deemed, 'perchance, my haughtier mood
 Was quelled by chains and solitude ;
 That he who once was brave—
 Was I not brave ?—had now become
 Estranged from honour, as from Rome.

They bade me to my country bear
 The offers these have borne ;
 They would have trained my lips to swear
 Which never yet have sworn.

Silent their base commands I heard ;
 At length I 'pledged a Roman's word,
 Unshrinking, to return.
 I go, prepared to meet the worst ;
 But I shall gall proud Carthage first.

They sue for peace ;—I bid you spurn
 The gilded bait they bear ;
 I bid you still, with aspect stern,
 War, ceaseless war, declare.

Fools as they were, could not mine eye,
 Through their 'dissembled calmness, spy
 The struggles of despair ?
 Else had they sent this wasted frame
 To bribe you to your country's shame ?

Your land—I must not call it mine ;
 No country has the slave ;
 His father's name he must resign,
 And even his father's grave—
 But this not now—beneath her lies
 Proud Carthage and her 'destinies :
 Her empire o'er the wave
 Is yours ; she knows it well, and you
 Shall know, and make her feel it too.—

Ay, bend your brows, ye ministers
 Of coward hearts, on me ;
 Ye know no longer it is hers,
 The empire of the sea ;
 Ye know her fleets are far and few,
 Her bands a 'mercenary crew ;
 And Rome, the bold and free,
 Shall trample on her prostrate towers,
 Despite your weak and wasted powers !

One path alone remains for me—
 My vows were heard on high ;
 Thy triumphs, Rome, I shall not see,
 For I return to die.

Then tell me not of hope or life ;
 I have in Rome no chaste, fond wife,
 No smiling 'progeny ;
 One word 'concentres for the slave,
 Wife, children, country, all—the grave.

DALE.

captiv'ity, imprisonment.
 cap'ture, seiz'ure.
 concen'tres, embraces.
 consigned', committed.
 contin'ued, last'ed.
 defeat'ed, overthrown'.
 des'tinies, fate.

dissem'bled, feigned.
 ec'stasy, rap'ture.
 em'bassy, deputa'tion.
 entreat'ies, importu'nities.
 exas'perated, infuriated.
 exhaust'ed, worn out.
 inflex'ible, stubborn.

mer'enary, hire'ling.
 perchance', perhaps'.
 pledged, plight'ed.
 prog'eny, off'spring.
 resourc'es, means.
 swar'thy, dark.
 ven'omed, poisonous.

¹ **Punic War.**—So the wars between Rome and Carthage (of which there were three) were called by the Romans. The name *Pœni* (whence *Punic*) was given to the Carthaginians because of their Phœnician origin. In the third Punic War,

Carthage was completely destroyed, 146 B.C. (See HISTORY OF ROME, Nelsons' School Series, p. 61.)

² **Lib'ya**, the northern part of Africa. After the fall of Carthage, Libya became a Roman province.

THE SAHARA.

THE Sahara may be likened to a vast ocean separating the negro kingdoms of equatorial Africa from the more 'civilized states of the north; and the numerous oases¹ with which it is studded are like so many islands in the midst of the desert waste. This waste, however, though 'destitute of everything helpful to human life and comfort, does not consist solely of barren sands. There is a vast extent of dry, stunted herbage, on which the camel can pasture; and thus a passage across the d̄esert is rendered 'practicable, by routes which would be impossible were the Sahara what it is often represented as being—one wide sandy plain.

In the desert, a route through the sand is always chosen in preference to any other; because in the sandy tracts springs are most likely to be found, and because the sand presents a soft-dry bed on which the traveller can repose after the fatigues of the day. It is this 'preference of the natives which has led Europeans to suppose that the whole of the Sahara is a sandy waste. The character of the desert is very much the 'reverse of this, there being hundreds of miles of hard, firm soil, while hundreds more are a mixture of stony fragments and pebbles.

Travelling on sand, there is of course no visible road, as the fierce winds that frequently recur soon 'obliterate all trace of footsteps. The guides, therefore, find their way by land-marks, which they carefully renew when necessary. These are often the most trifling objects, such as a tuft of herbage, a single plant, or the summit of a swell in the soil. In places where the plain is one void and arid flat, even such objects are wanting, and their placē is 'supplied by heaps of stones or cairns, piled at great distances. Sometimes the route extends for ten or twelve days over a plain affording not a single drop of moisture!

OASES.

Along nearly the whole length of the northern shores of the continent there extends a 'fertile belt of land, called by the natives the *Tell*, the cultivation of which yields the means of

life to the populations of the coast. In the neighbourhood of this fertile belt there are numerous oases extending into the interior; while others, fortunately for the purposes of commerce and civilization, exist within practicable distances across the whole desert.

Farther eastward, near the limits of the Sahara, a line of oases extends from its northern to its southern boundary. One of these, the Great Oasis of



AN OASIS IN THE DESERT.

Thebes, is one hundred and twenty miles in length. It is watered by a pleasant stream, with groves of palm and *acacia* on its banks.

The oases invariably lie in the lowest levels of the soil, and doubtless owe their existence to the moisture which naturally gravitates² towards such localities. Most of these isolated spots, even though hundreds of miles apart, enjoy a constant supply of water, and are favourable to the cultivation of the date palm and other fruit-trees, as well as of various kinds of vegetables.

The date palm supplies a large proportion of the food of the dwellers in the desert. The tree is thirty-three years in coming to maturity; after which it will bear fruit for seventy years more, the annual crop of each tree averaging from three to four hundred pounds weight. Not only man, but all the animals of the desert can feed on the date. The fruit is easily preserved by packing it closely in woollen bags; and when thus compressed into solid masses it may be kept for several years. Sometimes a tree is tapped for the sake of its sap, which is much relished as a beverage, and which, when allowed to ferment,³ forms a drink resembling cider. A single tree will yield fourteen or fifteen quarts a day for two years, but will die if the drain be continued longer.

Every part of the date palm is turned to profitable account. The wood is used for building, and for every kind of carpenter-work; the fibre is twisted into ropes; baskets are made of the branches; and sheep are fattened with the pounded stones of the fruit.

The population of the desert is necessarily sparse and scanty, in proportion to its enormous area. It consists of various tribes of two distinct nations;—the Berbers, made up of descendants of the ancient Lib'yans, of the Romans, and of the Van'dals; and the Arabs, originally invaders, who yet retain, in no small degree, their original characteristics.

The Berbers are the settled inhabitants of the oases, where the men cultivate the ground, and the women manage the manufactures. They maintain amicable relations with their nomadic⁴ brethren, to whom they are in the habit of confiding the care of such cattle as they possess, and of whose property they undertake the custody during the wanderings of the owners. The oasis generally contains a village (*ksar*), which is built of stone, and, together with the gardens, is walled in. Nothing is grown but what will produce food of some kind, and the utmost use is made of every foot of land and drop of water.

At the same time, provision is made for defence, and sentinels are kept continually on the watch for an enemy.

Outside the walls are the *marabets*, or 'sepulchres of the dead; upon which are lavished far more expense and taste than on the abodes of the living. Near each tomb rises a little sepulchral chapel, executed in a finished style of architecture, by the most skilful artisans that can be procured. These buildings are universally held sacred; and even the foe who would slaughter the living and make a prey of their property, leaves the resting-places of the dead inviolate.

THE ARABS.

The life of the desert nomads, even when free from war and brigandage, is one of perpetual variety and excitement. They spend the winter and the spring in the wilderness, where, at these seasons, there are both water and pasture; but they remain in one spot only for a few days, striking their tents and migrating to another as soon as the pasture is consumed.

As summer approaches, they resort to the oases where their property is kept; here they load their camels with merchandise, and journey northward. They arrive in the *Tell* just at harvest-time, when the price of corn is low. Here they pass the summer in barter and commerce, exchanging their woollen goods and dates for raw wool, sheep, &c.

At the close of the summer they set off southward again, arriving at the oases in October, just as the dates are ripe. Their assistance is now valuable in gathering in the crops, which occupies them a month; and another month is spent in bartering their raw wool and other late purchases for a portion of the dates which they have helped to gather, and for manufactured garments made by the women. These they deposit in their magazines, and then withdraw again to the desert, with their flocks and herds.

CARAVANS.

There are two classes of caravans,⁵ either of which a traveller may join. The first, and most expeditious, is the *gafu'la*, or merchants' caravans, which start with some degree of regularity from certain depôts in the northern oases, and whose departures are always made known beforehand. The camel-drivers regulate the speed of the journey, generally travelling from twenty to twenty-five miles a day, save in regions infested by robbers, where they will occasionally double that rate of



CARAVAN CROSSING THE DESERT

speed. In case of attack, every one defends himself and his property as he best can; and the timid are seen rushing towards the centre, to escape being cut off as stragglers.

The second kind of caravan is the *ne'ja*, which consists of a whole tribe in migration, and which travels much more slowly. They carry with them, not their merchandise merely, but all their cattle, tents, and household stuff, together with their women, children, domestic animals, and poultry.

They move along at an easy rate, and the journey is pleasant enough so long as no enemy appears; but should they meet the bands of a hostile tribe while thus encumbered, it may chance to go hard with them. The battle which ensues is one in which quarter is neither asked nor given, the Arabs being much more bitter in their warfare against each other than in their encounters with Europeans. Sunset is the signal for the cessation of the strife, and the defeated party is al-

lowed to make off in the night. In these conflicts prisoners are never made, the conquerors preferring the heads of their victims to any ransom that could be offered.

From Marocco six caravans traverse the Sahara every year, when from two thousand to three thousand camels are loaded with European produce, and start for the distant countries of the interior. Some of these caravans penetrate as far into Soudan as Timbuctu. They bring thence gold dust, buffalo-skins, ivory, senna, alkali, rhinoceros-horns, indigo, diamonds, perfumes, gums, and other articles of commerce. On reaching the banks of the Niger, the Moors deposit their merchandise on a hill. They then retire, and the negroes advance and criticise the goods. After an examination of three days, they generally come to terms, and the business is done.

am'icable, friendly
assist'ance, help.
bar'tering, exchanging
bandage, plun'der.
civilized', cultivated.
compressed', squeezed.
consumed', exhausted
cult'ivate, till.
cus'tody, guard'ianship
des'titute, devoid.
encoun'ters, conflicts.

encum'bered, embar'assed
enor'mous, vast.
expedi'tious, rap'id.
fer'tile, produc'tive.
inva'riably, u'niformly.
invi'olate, unin'jured
lav'ished, squan'dered.
magazines', store-houses.
matu'rity, ripe'ness.
mer'chandise, goods.
migra'tion, trav'elling.

neigh'bourhood, vicin'ity
obliterate, efface'.
occasionally, sometimes
perpet'ual, con'stant.
prac'ticable, perform'able.
pref'erence, choice; liking
prof'itable, lu'crative.
rel'ished, enjoyed'.
reverse', op'posite.
sep'ulchres, tombs.
supplied', filled up

¹ O'ases, fertile spots. The singular is *oasis*.

² Grav'itates, has a bias or tendency, under the influence of the law of gravitation, by which bodies are drawn towards the centre of the earth. Water, therefore, always seeks the lowest level.

³ Ferment', undergo fermentation; that change in organic substances by which their sugar, starch, &c., are decomposed. A

foam, or froth, rises to the top. This is the yeast, or barm, used in making dough — Cider is a liquor made from apples.

⁴ Nomad'ic, leading a wandering life; properly, pastoral. Tribes which lead an unsettled, wandering life, are called *nomads*.

⁵ Car'avan, a company of travellers going across the desert, who combine for greater security.

QUESTIONS.—What mistake is frequently made regarding the nature of the Sahara? What has led to this mistake? How do the guides find their way across the desert?

What is the *Tell*? Where do the oases usually lie? With what does the date palm supply the dwellers in the desert? To what two nations do these inhabitants belong? Who are the Berbers? Where do they live? What is the *ksar*? What are the *marabouts*?

What part of the year do the Arabs spend in the wilderness? For what purpose do they leave it?

What are the two classes of caravans called? Which travels the more quickly? To what danger are they exposed? What is characteristic of Arab warfare? How many caravans cross the Sahara from Marocco every year? How far do they penetrate? What do they bear thence?

THE LIGHT-HOUSE.

The rocky ledge runs far into the sea,
 And on its outer point, some miles away,
 The light-house lifts its massive masonry,—
 A pillar of fire by night,¹ of cloud by day.

Even at this distance I can see the tides,
 'Upheaving, break unheard along its base;—
 A 'speechless wrath, that rises and 'subsides
 In the white lip and 'tremor of the face.

And as the evening darkens, lo ! how bright,
 Through the deep purple of the twilight air,
 Beams forth the sudden 'radiance of its light,
 With strange, unearthly splendour in its glare.

Not one alone ;—from each 'projecting cape
 And 'perilous reef along the ocean's verge,
 Starts into life a dim, 'gigantic shape,
 Holding its lantern o'er the restless surge.

And the great ships sail outward and return,
 Bending and bowing, o'er the 'billowy swells ;
 And ever joyful, as they see it burn,
 They wave their silent welcomes and farewells.

They come forth from the darkness, and their sails
 Gleam for a moment only in the blaze ;
 And eager faces, as the light unveils,
 Gaze at the tower, and 'vanish while they gaze.

The mariner remembers when a child,
 On his first voyage, he saw it fade and sink ;
 And, when returning from 'adventures wild,
 He saw it rise again o'er ocean's brink.

Steadfast, serene, 'immovable, the same
 Year after year, through all the silent night,
 Burns on for evermore that 'quenchless flame,
 Shines on that inextinguishable light !

It sees the ocean to its bosom clasp
 The rocks and sea-sand with the kiss of peace ;—
 It sees the wild winds lift it in their grasp,
 And hold it up, and shake it like a fleece.

The startled waves leap over it ; the storm
 Smites it with all the scourges of the rain ;
 And steadily against its solid form
 Press the great shoulders of the 'hurricane.

The sea-bird² wheeling round it, with the din
Of wings and winds and 'solitary cries,
Blinded and 'maddened by the light within,
Dashes himself against the glare, and dies.

A new Prome'theus,³ chained upon the rock,
Still 'grasping in his hand the fire of Jove,
It does not hear the cry, nor heed the shock,
But hails the mariner with words of love.

"Sail on!" it says, "sail on, ye state'ly ships;
And with your floating bridge the ocean span;
Be mine⁴ to guard this light from all 'eclipse,—
Be yours to bring man nearer unto man!" LONGFELLOW.

adven'tures, en'terprises.
bil'lowy, surging
eclipse, obscura'tion.
gigan'tic, colos'sal.
grasp'ing, hold'ing.
hur'ricane, tem'pest.
immov'able, stead'fast.

mad'dened, ir'ritated.
mas'sive, bulky.
per'ilous, dan'gerous
project'ing, outstand'ing
quench'less, inextin'guish-
able.
ra'diance, bright'ness.

sol'itary, lonely
speech'less, voice'less.
subsides, falls
trem'or, quiv'ering from
fear.
upheav'ing, swell'ing.
van'ish, disappear'.

¹ A pillar of fire, &c.—The light-house is here compared to the cloud which led the children of Israel through the wilderness. (*Exodus*, xiii. 21.) The resemblance, however, does not go beyond the idea of a "pillar" bearing "fire," and the general notion of guidance implied in its purpose.

² The sea-bird, &c.—It is an interesting fact that sea-birds are often attracted by the rays of a light-house, and dash themselves against the lantern, often breaking the glass as well as injuring themselves. In a single night at Cape de Bréhat (Bretagne, France) nine panes were shattered from this cause. On another occasion, at the same place, a wild duck forced its way through two rows of mirrors, and fell upon the lamp. A thousand of these birds were on one occasion caught by the crew of a

British light-ship, who made them into a gigantic pie. It is necessary to defend with trellis-work the lights most exposed to visits of this kind. See *Light-houses and Light-ships*, by W. H. Davenport Adams.

³ Prome'theus, a fabled giant in Greek mythology, who was said to have formed men out of clay, and to have given them life by means of fire stolen from Heaven—"the fire of Jove." This provoked the wrath of Jupiter, who ordered him to be bound to a rock on Mount Cau'casus, a vulture being placed near to torment him by preying continually on his flesh.

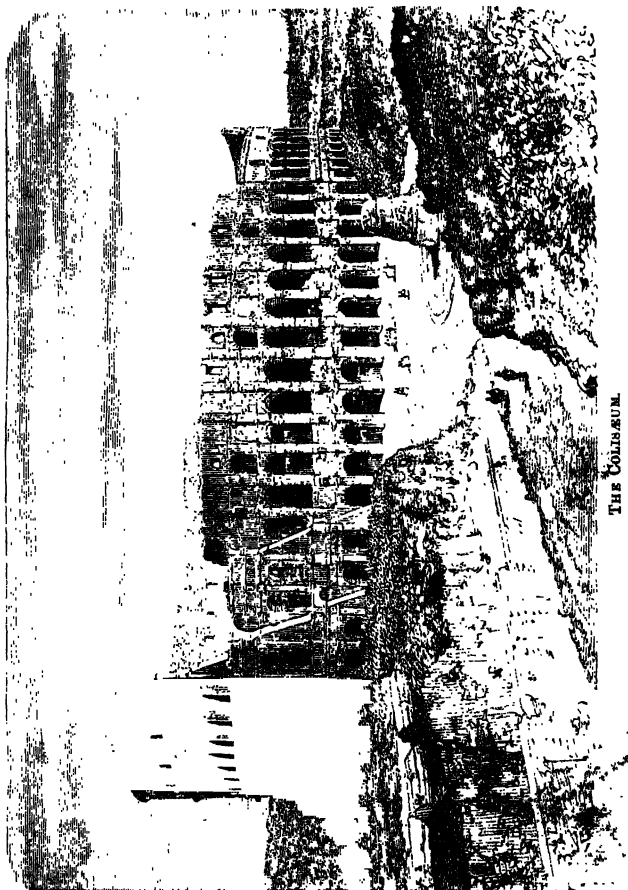
⁴ Be mine... be yours = Let it be my duty—let it be your duty. This is a classical construction. Compare, in Latin, *Est regis*, it is (the duty) of the king; *Sit meum*, be it mine (my duty).

THE LAST FIGHT IN THE COLISÆUM.

A.D. 404.

THE grandest and most 'renowned of all the ancient 'amphitheatres is the Colisæ'um at Rome. It was built by Vespa'sian and his son Titus,⁽⁶⁾ the conquerors of Jerusalem, in a valley in the midst of the seven hills of Rome. The captive Jews were forced to labour at it; and the materials—granite outside, and

a softer stone within—are so solid, and so admirably built, that still, at the end of eighteen centuries, it has scarcely even become a ruin, but remains one of the greatest wonders of Rome.



THE COLISÆUM.

Five acres of ground were enclosed within the oval of its outer wall, which, outside, rises perpendicularly in tiers of arches one above another. Within, the galleries of seats projected for-

wards, each tier coming out far beyond the one above it; so that between the lowest and the outer wall there was room for a great variety of chambers, passages, and vaults around the central space, called the arena.¹

Altogether, when full, this huge building held no fewer than 87,000 spectators! It had no roof; but when there was rain, or if the sun was too hot, the sailors in the 'porticos unfurled awnings that ran along upon ropes, and formed a covering of silk and gold tissue over the whole. Purple was the favourite colour for this veil; because, when the sun shone through it, it cast such beautiful rosy tints on the snowy arena and the white purple-edged togas of the Roman citizens.

When the emperor had seated himself and given the signal, the sports began. Sometimes a rope-dancing elephant would begin the entertainment, by mounting even to the summit of the building and descending by a cord. Or a lion came forth with a jewelled crown on his head, a diamond necklace round his neck, his mane plaited with gold, and his claws gilded, and played a hundred pretty gentle antics with a little hare that danced fearlessly within his grasp.

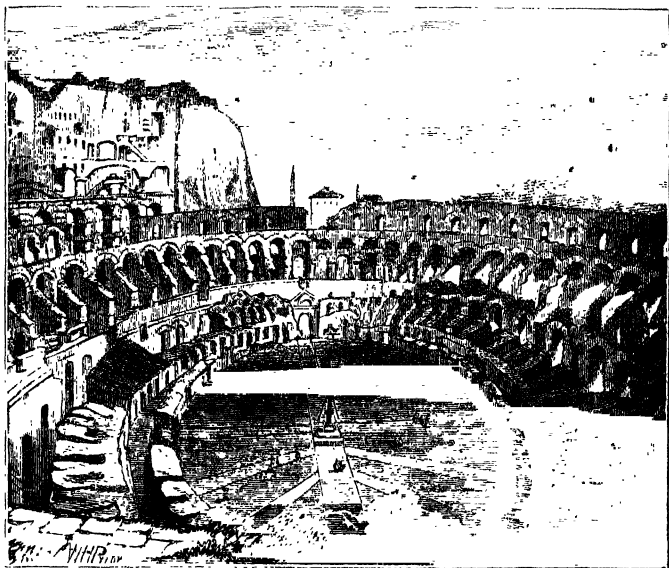
Sometimes water was let into the arena, a ship sailed in, and falling to pieces in the midst, sent a crowd of strange animals swimming in all directions. Sometimes the ground opened, and trees came growing up through it, bearing golden fruit. Or the beautiful old tale of Orpheus² was acted: these trees would follow the harp and song of the musician; but—to make the whole part complete—it was in no mere play, but in real earnest, that the Orpheus of the piece fell a prey to live bears.

For the Colisæum had not been built for such harmless spectacles as those first described. The fierce Romans wanted to be excited and to feel themselves strongly stirred; and, presently, the doors of the pits and dens around the arena were thrown open, and absolutely savage beasts were let loose upon one another—rhinoceroses and tigers, bulls and lions, 'leopards and wild boars—while the people watched with ferocious curiosity to see the various kinds of attack and defence, their ears at the same time being delighted, instead of horror-struck, by the roars and howls of the noble creatures whose courage was thus misused.

Wild beasts tearing each other to pieces might, one would think, satisfy any taste for horror; but the spectators needed even nobler game to be set before their favourite monsters;—men were brought forward to confront them. Some of these were, at first, in full armour, and fought hard, generally with

success. Or hunters came, almost unarmed, and gained the victory by swiftness and dexterity, throwing a piece of cloth over a lion's head, or disconcerting him by putting their fist down his throat.

But it was not only skill, but death, that the Romans loved to see; and condemned criminals and deserters were reserved to feast the lions, and to entertain the populace with their various kinds of death. Among those condemned was many a Christian martyr,³ who witnessed a good confession before the



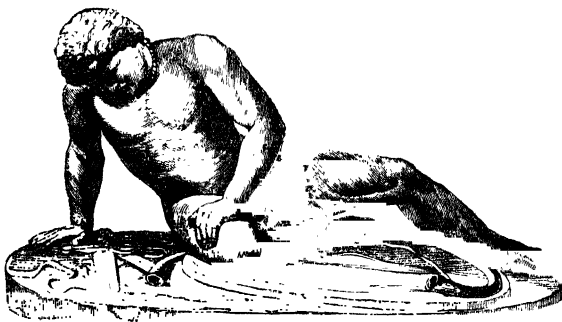
INTERIOR OF THE COLISÆUM.

savage-eyed multitude around the arena, and "met the lion's gory mane" with a calm resolution and a hopeful joy that the lookers-on could not understand. To see a Christian die, with upward gaze, and hymns of joy on his tongue, was the most strange and unaccountable sight the Colisæum could offer; and it was therefore the choicest, and reserved for the last of the spectacles in which the brute creation had a part.

The carcasses were dragged off with hooks, the blood-stained sand was covered with a fresh clean layer, perfume was wafted in stronger clouds, and a procession came forward—tall, well-

made men, in the prime of their strength. Some carried a sword and a lasso, others a trident and a net; some were in light armour, others in the full, heavy equipment of a soldier; some on horseback, some in chariots, some on foot. They marched in, and made their obeisance to the emperor; and with one voice their greeting sounded through the building: "Hail, Cæsar; those about to die salute thee!" They were the gladiators—the swordsmen trained to fight to the death to amuse the populace.

Fights of all sorts took place,—the light-armed soldier and the netsman—the lasso and the javelin—the two heavy-armed warriors,—all combinations of single combat, and sometimes a general *mêlée*. When a gladiator wounded his adversary, he shouted to the spectators, "He has it!" and looked up to know whether he should kill or spare. When the people held up their thumbs, the conquered was left to recover, if he could; if they turned them down, he was to die: and if he showed any reluctance to present his throat for the death-blow, there was a scornful shout, "Receive the steel!" Many of us must have seen



THE DYING GLADIATOR.

casts of that most touching statue of the wounded gladiator, that called forth from Byron these noble lines of indignant pity:—

"I see before me the gladiator lie:

He leans upon his hand; his manly brow

Consents to death, but conquers agony;

And his drooped head sinks gradually low;

And through his side the last drops, ebbing slow

From the red gash, fall heavy, one by one,

Like the first of a thunder-shower; and now

The arena swims around him—he is gone,

Ere ceased the inhuman shout which hailed the wretch who won.

" He heard it, but he heeded not ; his eyes
 Were with his heart, and that was far away :
 He recked not of the life he lost, nor prize ;
 But where his rude hut by the Danube lay—
 There were his young barbarians all at play,
 There was their Dacian ' mother—he their sire,
 Butchered to make a Roman holiday.—
 All this rushed with his blood.—Shall he expire,
 And 'unavenged?—Arise, ye Goths,' and glut your ire!"

Christianity, however, worked its way upwards, and at last was professed by the emperor on his throne. Persecution came to an end, and no more martyrs fed the beasts in the Colisæum. The Christian emperors 'endeavoured to prevent any more shows where cruelty and death formed the chief interest, and no truly religious person could endure the spectacle ; but custom and love of 'excitement prevailed even against the emperor. They went on for fully a hundred years after Rome had, in name, become a Christian city, and the same customs prevailed wherever there was an amphitheatre or pleasure-loving people.

Meantime the enemies of Rome were coming nearer and nearer. Al'aric, the great chief of the Goths, led his forces into Italy, and 'threatened the city itself. Hono'rius, the emperor, was a cowardly, almost idiotic boy ; but his brave general, Stil'icho, assembled his forces, met the Goths at Pollen'tia (about twenty-five miles from where Turin now stands), and gave them a complete defeat, on Easter-day of the year 403. He pursued them to the mountains, and for that time saved Rome.

In the joy of victory, the Roman Senate invited the conqueror and his ward Honorius to enter the city in triumph, at the opening of the new year, with the white steeds, purple robes, and 'vermilion cheeks with which, of old, victorious generals were welcomed at Rome. The churches were visited instead of the Temple of Jupiter, and there was no murder of the captives ; but Roman 'bloodthirstiness was not yet allayed, and, after the 'procession had been completed, the Colisæum shows commenced, 'innocently at first, with races on foot, on horseback, and in chariots ; then followed a grand hunt of beasts turned loose in the arena ; and next a sword-dance. But after the sword-dance came the arraying of swordsmen, with no blunted weapons, but with sharp spears and swords—a gladiator combat in full earnest. The people, 'enchanted, applauded with shouts of 'ecstasy this gratification of their savage tastes.

Suddenly, however, there was an interruption. A rude,

roughly-robed man, bareheaded and barefooted, had sprung into the arena, and, waving back the gladiators, began to call aloud upon the people to cease from the shedding of innocent blood, and not to requite God's mercy, in turning away the sword of the enemy, by encouraging murder. Shouts, howls, cries, broke in upon his words; this was no place for preachings—the old customs of Rome should be observed—"Back, old man!"—"On, gladiators!"

The gladiators thrust aside the meddler, and rushed to the attack. He still stood between, holding them apart, striving in vain to be heard. "Sedition! sedition!"—"Down with him!"—was the cry; and the prefect in authority himself added his voice. The gladiators, enraged at interference with their vocation, cut him down. Stones, or whatever came to hand, rained upon him from the furious people, and he perished in the midst of the arena! He lay dead; and then the people began to reflect upon what had been done.

His dress showed that he was one of the hermits who had vowed themselves to a life of prayer and self-denial, and who were greatly revered, even by the most thoughtless. The few who had previously seen him, told that he had come from the wilds of Asia on pilgrimage, to visit the shrines and keep his Christmas at Rome. They knew that he was a holy man—no more: it is not even certain what his name was. But his spirit had been stirred by the sight of thousands flocking to see men slaughter one another, and in his simple-hearted zeal he had resolved to stop the cruelty, or die.

He had died, but not in vain. His work was done. The shock of such a death before their eyes turned the hearts of the people; they saw the wickedness and cruelty to which they had blindly surrendered themselves; and since the day when the hermit died in the Colisæum, there has never been another fight of gladiators. Not merely at Rome, but in every province of the empire, the custom was utterly abolished; and one habitual crime at least was wiped from the earth by the self-devotion of one humble, obscure, and nameless man.

A Book of Golden Deeds.

abolished, destroyed.
absolutely, positively.
admirably, excellently.
agonizing, suffering.
amphitheatres, circuses.
awnings, canopies.
bloodthirstiness, desire
for slaughter.
carcasses, dead bodies.

condemned, sentenced to
death.
confront, encounter.
descending, going down.
dexterity, cleverness.
disconcerting, confusing.
ecstasy, rapture.
enchanted, delighted.
endeavoured, attempted.

entertainment, amusement.
equipment, outfit. [ment.
excitement, sensation.
galleries, tiers.
inhuman, merciless.
innocently, harmlessly.
leopards, spotted animals.
melee (mā-lā), confused
fight.

obeisance, reverence.
perpendicularly, vertically.
populace, the common people.
porchicos, porches
previously, formerly.
procession, pageant.

reluctance, unwillingness.
renowned, famous.
requisite, repay.
resolution, firmness.
reverenced, venerated.
rhinoceroses, thick-skinned animals.
spectacles, exhibitions.

surrendered, yielded.
threatened, menaced.
unaccountable, inexplicable.
unavenged, without retaliation.
vermilion, bright red.
vocation, profession.

¹ Are'na.—So called from the sand [Lat. *arena*] with which it was strown.

² Orpheus, fabled son of a king of Thrace, his mother being the chief of the muses. His skill as a poet and a musician was such that the rocks and the trees followed him.

³ Christian martyr.—The persecutions of the early Christians by the Roman Emperors took place between 64 and 303 A. D. There were eleven great persecutions, of three of which Rome was the chief scene. The Christian victims were frequently forced to encounter wild beasts in the arena, and were sooner or later torn to pieces by them.

⁴ Da'cian, a native of Dacia in Hungary, which was subdued by the Emperor Trajan in 106 A. D. On the occasion of his triumph, upwards of 10,000 captives were made to fight with one another in the

circus, for the amusement of the people. The combats lasted 123 days. Trajan's Column, erected by the Senate and people in 114 A. D., to commemorate his victories, is so perfect in its design and proportions, that it has been taken as a model for all succeeding erections of the same kind. His achievements are delineated in a series of bas-reliefs, continued in a spiral form from the base to the summit of the shaft.

⁵ Ye Goths.—Rome was taken and the empire was overthrown by different Gothic tribes in the fifth century, when the barbarous treatment to which Rome had subjected its captives from these races was barbarously avenged. There is no reason, however, to believe that the Dacians subdued by Trajan were Goths; indeed, the Goths did not get possession of Dacia till 270 A. D.

QUESTIONS.—Which was the grandest of the ancient amphitheatres? By whom was it built? What space does it cover? What number of spectators did it hold? Who gave the signal for the sports to begin? What was the nature of the opening sports? By what were the more harmless spectacles succeeded? What followed the fight of beasts with beasts? What was considered the choicest spectacle of this kind? Who then marched in, and greeted the emperor? How did the spectators indicate whether they wished a vanquished gladiator to be killed or spared? What put an end to these displays? When were they revived at Rome? Who suddenly interrupted the sports? What was his fate? What effect had his death?

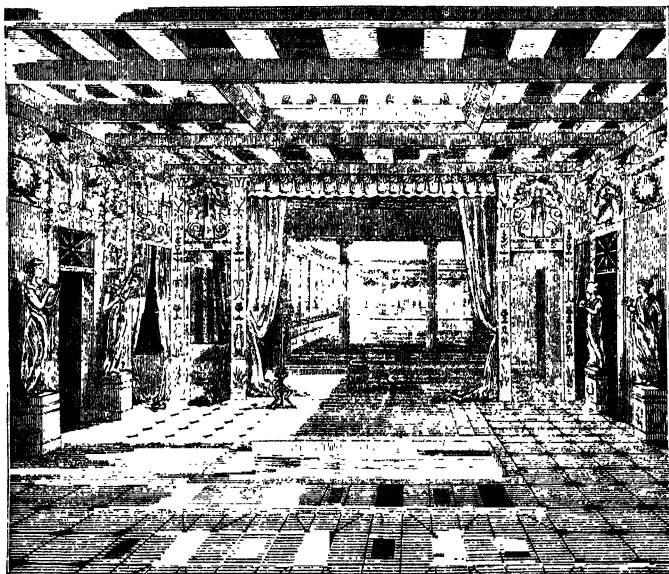
THE DESTRUCTION OF POMPEII.

ONCE upon a time there stood a town in Italy, at the foot of Mount Vesu'vius, which was to Rome what Brighton or Hastings is to London—a fashionable watering-place. There Roman gentlemen and members of the Senate built villas, to which they were in the habit of retiring from the fatigues of business or the broils of politics.

The outsides of all the houses were adorned with frescoes,¹ and every shop glittered with all the colours of the rainbow. At the end of each street there was a charming fountain, and any one who sat down beside it to cool himself had a delightful

view of the Mediterranean, then as beautiful, as blue and sunny as it is now.

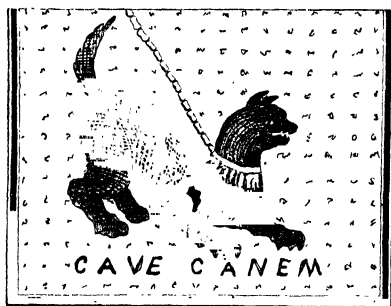
On a fine day, crowds might have been seen lounging here; some 'sauntering up and down in gala dresses of purple, while slaves passed to and fro bearing on their heads splendid vases; others sat on marble benches, shaded from the sun by awnings, and having before them tables covered with wine, and fruit, and flowers. Every house in that town was a little palace, and every palace was like a temple, or one of our great public buildings.



ATRIUM OF A HOUSE IN POMPEII.

Any one who thinks a 'mansion in Belgravia² the height of splendour, would have been astonished, had he lived in those days, to find how completely the abodes of those Roman lords outshone "the stately homes of England." On entering the former, the visitor passed through a 'vestibule decorated with rows of pillars, and then found himself in the *a'trium*,³ in which the household gods kept guard over the owner's treasure, which was placed in a safe, or strong-box, secured with brass or iron bands. In this apartment guests were received with imposing

ceremony; and there the patron heard the complaints, supplications, and adulations of his great band of clients or dependants, who lived on his smiles and bounty, but chiefly on the latter. Issuing thence, the visitor found himself in the *tablinum*,⁴ an apartment paved with mosaic⁵ and decorated with paintings, in which were kept the family papers and archives. The house contained also dining and supper rooms, and a number of sleeping rooms hung with the softest of Syrian cloths;—cabinets filled with rare jewels and antiquities, and sometimes a fine collection of paintings;—and last of all, a pillared *peristyle*,⁶ opening out upon the garden. There the finest fruit hung temptingly in the rich light of a golden sky; and fountains, which flung their



"BEWARE OF THE DOG!"

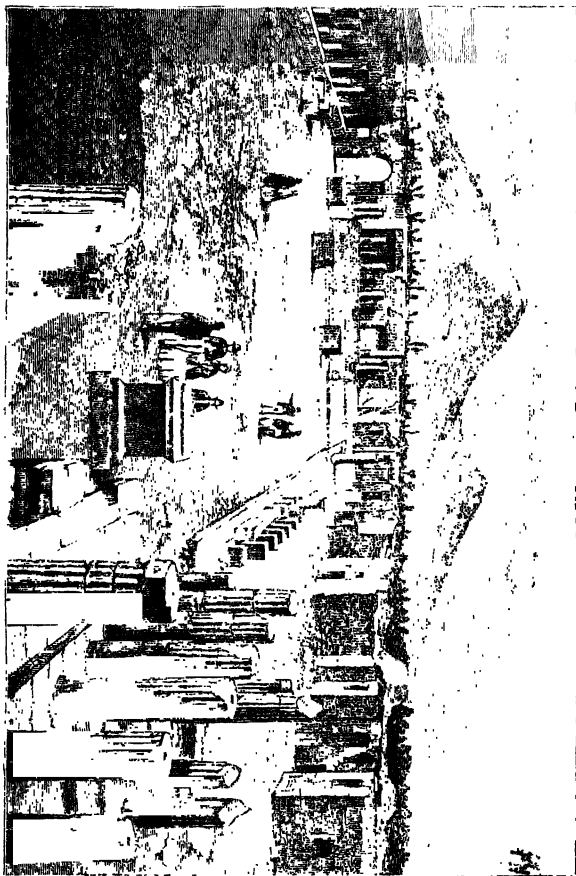
waters aloft in every imaginable form and device, cooled the air and discoursed sweet music to the ear. From behind each shrub there peeped a statue, or the bust of some great man, carved from the purest white marble, and placed in charming contrast with bouquets of rare flowers springing from stone vases. On the gate, or in mosaic on the

pavement within, there was always the image of a dog, and beneath it the inscription, *Cave canem*—that is, "Beware of the dog!" The frescoes on the walls represented scenes in the Greek legends, such as "The Seizure of Euro'pa," "The Battle of the Amazons," &c.; many of which are still to be seen in the museum at Naples. The pillars in the peristyle of which we have just spoken were encircled with garlands of flowers, which were renewed every morning. The tables of citron-wood were inlaid with silver arabesques;⁷ the couches were of bronze, gilt and jewelled, and were furnished with thick cushions, and tapestry embroidered with marvellous skill.

When the master gave a dinner party, the guests reclined upon these cushions, washed their hands in silver basins, and dried them with napkins fringed with purple; and having made a libation on the altar of Bacchus,⁸ ate oysters brought from the shores of Britain, kids which were carved to the sound of music, and fruits served up on ice in the hottest days of summer.

While the cup-bearers filled their golden cups with the rarest and most delicate wines in the world, other attendants crowned them with flowers wet with dew, and dancers executed the most

THE FORUM OF POMPEII.



graceful movements, and singers accompanied by the lyre poured forth an ode of Horace^(b) or of Anacreon.^(b)

After the banquet, a shower of scented water, thrown from

invisible pipes, spread perfume over the apartment ; and everything around, even the oil, and the lamps, and the jets of the fountain, shed forth the most grateful odour ; and suddenly from the mosaic of the floor tables of rich dainties, of which we have at the present day no idea, arose, as if by magic, to stimulate the palled appetites of the revellers into fresh activity. When these had disappeared, other tables succeeded them, upon which senators, and consuls, and proconsuls gambled away provinces and empires by the throw of dice ; and last of all, the tapestry was suddenly raised, and young girls, lightly attired, wreathed with flowers, and bearing lyres in their hands, issued forth, and charmed sight and hearing by the graceful mazes of the dance.

One day, when festivities such as these were in full activity, Vesuvius sent up a tall and very black column of smoke, something like a pine-tree ; and suddenly, in broad noonday, darkness black as pitch came over the scene ! There was a frightful din of cries, groans, and imprecations, mingled confusedly together. The brother lost his sister, the husband his wife, the mother her child ; for the darkness became so dense that nothing could be seen but the flashes which every now and then darted forth from the summit of the neighbouring mountain. The earth trembled, the houses shook and began to fall, and the sea rolled back from the land as if terrified ; the air became thick with dust ; and then, amidst tremendous and awful noise, a shower of stones, scorix, and pumice⁹ fell upon the town, and blotted it out for ever !

The inhabitants died just as the catastrophe found them—guests in their banquet-halls, brides in their chambers, soldiers at their post, prisoners in their dungeons, thieves in their theft, maidens at the mirror, slaves at the fountain, traders in their shops, students at their books. Some attempted flight, guided by blind people, who had walked so long in darkness that no thicker shadows could ever come upon them ; but of these many were struck down on the way. When, a few days afterwards, people came from the surrounding country to the place, they found nought but a black, level, smoking plain, sloping to the sea, and covered thickly with ashes ! Down, down beneath, thousands and thousands were sleeping “ the sleep that knows no waking,” with all their little pomps, and vanities, and frivolities, and pleasures, and luxuries, buried with them.

This took place on the 23rd of August, 79 A.D. ; and the name of the town thus suddenly overwhelmed was POMPEII (*Pompā'ee*).

Sixteen hundred and seventeen years afterwards, curious persons began to dig and excavate on the spot, and lo ! they found the city very much as it was when overwhelmed. The houses were standing, the paintings were fresh, and the skeletons¹⁰ stood in the very positions and the very places in which death had overtaken their owners so long ago !

The marks left by the cups of the tipplers still remained on the counters ; the prisoners still wore their fetters, the belles their chains and bracelets ; the miser held his hand on his



CASTS OF BODIES DISCOVERED IN THE RUINS OF POMPEII.
(In the Museum at Naples.)

hoarded coin ; and the priests were lurking in the hollow images of their gods, from which they uttered responses and deceived the worshippers. There were the altars, with the blood dry and crusted upon them ; the stables in which the victims of the sacrifice were kept ; and the hall of mysteries, in which were symbolic paintings.

The researches are still going on, new wonders are every day coming to light, and we soon shall have almost as perfect an idea of a Roman town in the first century of the Christian era as if we had walked the streets and gossiped with the

idle loungers at the fountains. Pompeii is the ghost of an extinct civilization rising up before us. *Illustrated Magazine of Art.*

adula'tions, flat'teries.
antiq'uities, curios'ities.
ap'petites, desires'.
ar'chives, rec'ords.
belles, la'dies
bou'quets (*boo-kās*), bunches
catas'trophe, calam'ity.
del'icate, choice.
delight'ful, charm'ing.
discours'd, gave forth.
dun'geons, cells.

embroi'dered, sewed.
ex'cavate, hol'low out.
fash'ionable, much fre-
fatigues', toils. [quent'ed.
festiv'ities, entertain'ments
frivol'ities, frolics
gar'lands, wreaths.
gos'siped, tat'tled.
grate'ful, pleas'ant.
impreca'tions, curs'es
lux'uries, indul'gences.

man'sion, large house.
mys'teries, se'cret rites.
respon'ses, an'swers.
saun'tering, stroll'ing.
stim'ulate, excite'.
symbol'ic, emblematic.
tap'estry, nec'dle-work.
tempt'ingly, attrac'tively.
ter'rified, fright'ened.
tremen'dous, hor'rible.
ves'tibule, en'trance-hall.

¹ Fres'coes, paintings made upon the walls themselves. In fresco-painting, the colours are laid upon the lime while it is still soft and wet

² Belgra'via, the south-western district of London, built between 1826 and 1852, on land belonging to the Marquis of Westminster, one of whose titles is Viscount Belgrave; hence the name. Being full of splendid mansions, it is taken as the type of fashionable London.

³ A'trium, the principal public apartment, or reception-room, in a Roman house. There was an opening in the centre of the roof, towards which the other roofs sloped so as to throw down the rain into an open cistern in the middle of the floor, called the *impluvium* (Lat. *pluvia*, rain).

⁴ Tabli'num, a recess or room at the farther end of the *atrium*, of which it formed a part.

⁵ Paved with mosaic.—Originally, Roman floors were beaten down with rammers; hence *pavement* (from Lat. *pavio*, I beat). Sometimes pieces of marble were embedded in it; and this probably suggested the idea of mosaics, which are devices formed by in-laying a neutral ground with stones of different shapes and colours.

⁶ Per'istyle, an open court, larger than

the *atrium*, in the back part of the house. It was surrounded by columns, with garden in the centre. From the columns it received its name,—*peristyle* being a Greek word meaning a range of columns around a building.

⁷ Arabesque, a style of decoration in which the Arabians excelled, in which fruit, flowers, and other devices were interwoven with carved lines

⁸ Libation on the altar of Bac'chus, wine poured out in honour of the god of wine.

⁹ Sco'riæ, the slaggy, vitreous lava sent forth by volcanoes. Pu'mice is a light porous substance, like stony froth, found in all volcanic regions. It is used for polishing ivory, marble, glass, and metals.

¹⁰ Skeletons.—In 1865, while the excavations were proceeding under the direction of Signor Fiorelli, the workmen discovered peculiar cavities, at the bottom of which bones were discernible. These cavities were filled with liquid plaster, and when this had hardened, and the outer crust of pumice was removed, the casts of several human bodies were displayed. These, with many other relics of the buried city, are to be seen in the National Museum at Naples.

QUESTIONS.—In what relation did Pompeii stand to Rome? How were its inhabitants chiefly occupied? What was the *atrium* in a Pompeian house? Describe the *tablinum*. What was the *peristyle*? How was it decorated? Describe a Pompeian dinner party. When did the eruption which buried the city take place? How were the inhabitants occupied at the time? When did the work of excavation begin? In what condition was the city found?

THE SOUTH-WEST MONSOON IN CEYLON.

MAY is 'signalized by the great event of the change of the monsoon,¹ and all the grand 'phenomena which accompany its approach. It is difficult for one who has not resided in the tropics to comprehend the feeling of enjoyment which accompanies these periodical commotions of the atmosphere. In Europe they would be fraught with annoyance, but in Ceylon' they are welcomed with a relish proportionate to the 'monotony they dispel.

Long before the wished-for period arrives, the verdure produced by the previous rains becomes almost 'obliterated by the burning droughts of March and April. The deciduous trees² shed their foliage, the plants cease to put forth fresh leaves, and all vegetable life 'languishes under the unwholesome heat. The grass withers on the baked and cloven earth, and red dust settles on the branches and thirsty brushwood.

The insects, deprived of their accustomed food, disappear under ground, or hide beneath the decaying bark; the water-beetles bury themselves in the hardened mud of the pools; and the snails retire into the 'crevices of the rocks or the hollows among the roots of the trees. Butterflies are no longer seen hovering over the flowers; the birds appear fewer and less joyous; and the wild animals and crocodiles, driven by the drought from their accustomed retreats, wander through the jungle, or even venture to approach the village wells in search of water. Man equally languishes under the general 'exhaustion, ordinary exertion becomes distasteful, and the Singalese,³ although inured to the climate, move with 'lassitude and reluctance.

Meanwhile the air becomes loaded to 'saturation with 'aqueous vapour, drawn up by the 'augmented force of evaporation acting vigorously over land and sea: the sky, instead of its brilliant blue, assumes the sullen tint of lead; and not a breath disturbs the motionless rest of the clouds that hang on the lower range of the hills. At length, generally about the middle of the month, but frequently earlier, the sultry 'suspense is broken by the arrival of the wished-for change. The sun has by this time nearly attained his greatest northern declination,⁴ and created a torrid heat throughout the lands of Southern Asia and the peninsula of India.

The air, lightened by its high 'temperature and such watery vapour as it may contain, rises into loftier regions, and is re-

placed by in-draughts from the neighbouring sea ; and thus a tendency is gradually given to the formation of a current bringing up from the south the warm humid air of the equator. The wind, therefore, which reaches Ceylon comes laden with moisture, taken up in its passage across the great Indian Ocean. As the monsoon draws near, the days become more overcast and hot, banks of clouds rise over the ocean to the west, and in the twilight the eye is attracted by the peculiar whiteness of the sea-birds that sweep along the strand to seize the objects flung on shore by the rising surf.

At last the sudden lightnings flash among the hills and sheet among the clouds that overhang the sea, and with a crash of thunder the monsoon bursts over the thirsty land, not in showers or partial torrents, but in a wide deluge, that in the course of a few hours overtops the river banks and spreads in inundations over every level plain. The rain at these periods excites the astonishment of a European. It descends in almost continuous streams, so close and dense that the level ground, unable to absorb it sufficiently fast, is covered with one uniform sheet of water ; and down the sides of declivities it rushes in a volume that wears channels in the surface. For hours together, the noise of the torrent, as it beats upon the trees and bursts upon the roofs, flowing thence in rivulets along the ground, occasions an uproar that drowns the ordinary voice, and renders sleep impossible.

This violence, however, seldom lasts more than an hour or two, and gradually abates after intermittent paroxysms, and a serenely clear sky supervenes. For some days heavy showers continue to fall at intervals in the forenoon ; and the evenings which follow are embellished by sunsets of the most gorgeous splendour, lighting the fragments of clouds that survive the recent storm.

The extreme heat of the previous month becomes modified in June ; the winds continue steadily to blow from the south-west, and frequent showers, accompanied by lightning and thunder, serve still further to diffuse coolness throughout the atmosphere and verdure over the earth. So instantaneous is the response of nature to the influence of returning moisture, that in a single day, and almost between sunset and dawn, the green hue of reviving vegetation begins to tint the saturated ground.

In ponds from which, but a week before, the wind blew clouds of sandy dust, the peasantry may now be seen catching the

reëminated fish ; and tank-shells and water-beetles revive and wander over the 'submerged sedges. The electricity of the air 'stimulates the vegetation of the trees ; and scarcely a week elapses before the plants are covered with the 'larvæ of butterflies, the forest is murmuring with the hum of insects, and the air is harmonious with the voice of birds.

J. EMERSON TENNENT.^(b)

a'queous, watery.
augment'ed, increased'.
crev'ices, fissures.
decliv'ities, slopes.
exhaus'tion, weariness.
instantaneous, imme'diate.
intermit'tent, at in'tervals.

inunda'tions, floods.
lan'guishes, droops.
lar'væ, new-hatched young.
las'situde, lan'guor.
mod'ified, less'ened.
mois'ture, damp'ness.
monot'ony, sameness.
oblit'erated, effaced'.
par'oxysms, fits.

phenom'ena, appear'ances.
satura'tion, fullness.
signalized', disti'nguished.
stim'ulates, excites'.
submerged', immersed'.
suspense', delay'.
tem'perature, degree of heat.
vegeta'tion, plant life.

¹ The monsoon.—The monsoons are periodical winds which prevail in the Indian Ocean, especially between Africa and Hindustan, blowing half the year in one direction, and the other half in the opposite direction. The north-east monsoon, which carries rain to Africa, blows from November to April. The south-west monsoon, which carries rain to India, blows from May to October, being caused by the higher temperature of the continent of Asia during that season.

² Decid'uous trees, trees which lose their leaves in autumn, as opposed to evergreens.

³ Singalese', natives of Ceylon.

'Greatest northern declina'tion — that point in the sun's apparent path at which it reaches its greatest northern distance from the equator. The circle drawn round the Earth at this point is called the *Tropic of Cancer*, because the sun then enters the constellation *Cancer*. It is

called *tropic* [Gr. *trepo*, I turn], or turning-point, because then the sun's path *turns* southward again. The turning-point is also called the *solstice* [Lat. *sol*, sun ; *sto*, I stand], because at that time the sun seems to *stand* still in its position in the zodiac for several days. This point is 23½ degrees north of the equator. The sun reaches it on the 21st of June, which is called the *summer solstice*, and marks the longest day in the year in the northern hemisphere. Six months later (22nd December) the sun attains its greatest southern declination, forming the *winter solstice*, and marking the shortest day in the northern hemisphere. The circle of the globe drawn through this point is the *Tropic of Capricorn* ; so called because then the sun enters the constellation *Capricornus*. At the intervening middle points the sun's path crosses the equator, making the *Equinoxes* of spring and autumn, when day and night are of the same length all over the globe.

QUESTIONS.—What is the monsoon ? When does its change occur in Ceylon ? How are the commotions of the atmosphere which accompany the change regarded ? In what state is vegetable nature before it arrives ? What effect has the drought upon the animal creation ? What are the first indications of the approaching change ? Whence does the wind derive its moisture ? By what is the arrival of the monsoon accompanied ? What is remarkable about the rain ? How soon do its effects appear in nature ?

AMBITION CLAD IN HUMILITY.

'Tis a common proof
That lowliness is young Ambition's ladder,
Whereto the climber upward turns his face ;
But, when he once attains the utmost round,
He then unto the ladder turns his back,
Looks in the clouds, scorning the base degrees
By which he did ascend.

SHAKESPEARE.

THE SEVEN AGES OF MAN.

ALL the world's a stage,
 And all the men and women merely players:
 They have their 'exits and their 'entrances;
 And one man in his time plays many parts,
 His acts being seven ages. At first the infant,
 'Mewling and puking in the nurse's arms.
 And then the 'whining school-boy, with his 'satchel
 And shining morning face, creeping like snail
 Unwillingly to school. And then the lover,
 Sighing like furnace, with a 'woful ballad
 Made to his mistress' eyebrow. Then a soldier,
 Full of strange oaths, and bearded like the pard;¹
 Jealous in honour, sudden and quick in quarrel,
 Seeking the 'bubble 'reputation
 Even in the cannon's mouth. And then the justice,
 In fair round belly with good capon² lined,
 With eyes severe and beard of formal cut,³
 Full of wise saws and modern 'instances;
 And so he plays his part. The sixth age shifts
 Into the lean and slippered pantaloons,⁴
 With 'spectacles on nose and pouch on side,
 His youthful hose, well saved, a world too wide
 For his 'shrunk shank; and his big manly voice,
 Turning again toward childish treble, pipes
 And whistles in his sound. Last scene of all,
 That ends this strange 'eventful history,
 Is second childishness, and mere 'oblivion;
 Sans⁵ teeth, sans eyes, sans taste, sans everything.
 SHAKESPEARE,⁽⁶⁾—*As You Like It*.

bub'ble, empty.
en'trances, in-comings.
event'ful, change'ful.
ex its, out-goings.
in'stances, examples.

jeal'ous, watch'ful.
mewl'ing, squall'ing.
oblivion, forgetfulness
reputa'tion, fame.
sat'chel, school-bag.

shrunk, shriv'elled.
spec'tacles, glasses
unwill'ingly, reluc'tantly.
whin'ing, peev'ish.
wo'ful, mel'ancholy.

¹ The pard, the panther; but used in poetry for any spotted animal. *Pardus* is Latin for panther; and *leopardus* for lion-panther. The poet here compares the soldier's beard to the whiskers of the panther, which give it a very fierce aspect.

² Ca'pon, fowl fattened for the table.

³ Beard of formal cut.—This is the pointed "legal" beard of the sixteenth century, such as we see in portraits of Lord Bacon, as well as of Raleigh and Spenser, and of Shakespeare himself. It was of a different cut from the "military" beard

of the soldier, and from the long "clerical" beard, or the broad, spade-shaped beard of the civilian. Beards went out of fashion in England at the Restoration (1660); but their use has been gradually extending since the middle of the present century.

⁴ Pantaloons, a slovenly and silly old man. The name was originally given to a covetous old dotard in Italian comedy; and then to a buffoon in pantomimes.

⁵ Sans, without; a French word adopted in English without change of spelling; but it is pronounced as an English word.



PREPARING FOR THE CHASE

LIFE IN NORMAN ENGLAND.

THE tall frowning keep¹ and solid walls of the great stone castles, in which the Norman barons lived, betokened an age of violence and suspicion. Beauty gave way to the needs of safety. Girdled with its green and slimy ditch, round the inner edge of which ran a parapeted wall pierced along the top with shot-holes, stood the buildings, spreading often over many acres.

If an enemy managed to cross the moat and force the gateway, in spite of a portecullis² crashing from above, and



melted lead pouring in burning streams from the 'perforated top of the rounded arch, but little of his work was yet done; for the keep lifted its huge angular block of masonry within the inner bailey or court-yard, and from the narrow chinks in its ten-foot wall rained a sharp incessant shower of arrows, sweeping all approaches to the high and narrow stair, by which alone access could be had to its interior.

These loop-holes were the only windows, except in the top-most story, where the chieftain, like a vulture in his rocky nest, watched all the surrounding country. The day of splendid oriels³ had not yet come in castle architecture.

Thus a baron in his keep could defy, and often did defy, the king upon his throne. Under his roof, eating daily at his board, lived a throng of armed 'retainers; and around his castle lay farms tilled by martial franklins,⁴ who at his call laid aside their implements of 'husbandry, took up the sword and spear, which they could wield with equal skill, and marched beneath his banner to the war.

With robe ungirt and head uncovered each tenant had done homage and sworn an oath of 'fealty, placing his joined hands between those of the sitting baron, and humbly saying as he knelt, "I become your man from this day forward, of life and limb and of earthly worship; and unto you I shall be true and faithful, and bear to you faith for the 'tenements that I claim to hold of you, saving the faith that I owe unto our sovereign lord the king." A kiss from the baron completed the ceremony.

The furniture of a Norman keep was not unlike that of an English house. There was richer ornament—more 'elaborate carving. A *faldestol*, the original of our arm-chair, spread its drapery and cushions for the chieftain in his lounging moods. His bed now boasted curtains and a roof, although, like the English lord, he still lay only upon straw. Chimneys tunnelled the thick walls, and the cupboards glittered with glass and silver. Horn lanterns and the old spiked candlesticks lit up his evening hours, when the chess-board arrayed its clumsy men, carved out of walrus-tusk, then commonly called whale's-bone. But the baron had an unpleasant trick of breaking the chess-board on his opponent's head, when he found himself check-mated; which somewhat marred said opponent's enjoyment of the game. Dice of horn and bone emptied many a purse in Norman England. Tables and draughts were also sometimes played.

Dances and music whiled away the long winter nights ; and on summer evenings the castle court-yards 'resounded with the noise of foot-ball, *kayles* (a sort of ninepins), wrestling, boxing, leaping, and the fierce joys of the bull-bait. But out of doors, when no fighting was on hand, the hound, the hawk, and the lance attracted the best energies and skill of the Norman gentleman.

Rousing the forest-game with dogs, they shot at it with barbed and feathered arrows. A field of ripening corn never turned the chase aside: it was one 'privilege of a feudal baron to ride as he pleased over his tenants' crops, and another to quarter his insolent hunting-train in the farm-houses which pleased him best ! The elaborate details of *woodcraft* became an important part of a noble boy's education ; for the numerous bugle calls and the 'scientific' 'dissection of a dead stag took many seasons to learn.

After the Conquest, to kill a deer or own a hawk came more than ever to be regarded as the special privilege of the 'aristocracy. The hawk, daintily dressed, as befitted the companion of nobility, with his head wrapped in an embroidered hood, and a peal of silver bells tinkling from his rough legs, sat in state, bound with leathern jesses⁵ to the wrist, which was protected by a thick glove. The ladies and the clergy loved him. By many a 'mere the abbots ambled on their ponies over the swampy soil, and sweet shrill voices cheered the long-winged hawk, as he darted off in pursuit of the soaring quarry.

The author of "*Ivanhoe*,"⁶ and kindred pens, have made the 'tournament a picture 'familiar to all readers of romance. It therefore needs no long description here. It was held in honour of some great event—a coronation, wedding, or victory. Having practised well during squirehood at the *quintain*,⁷ the knight, clad in full armour, with visor barred and the colours of his lady on crest and scarf, rode into the lists, for which some level green was chosen and surrounded with a 'palisade.

For days before, his shield had been hanging in a neighbouring church, as a sign of his intention to compete in this great game of chivalry. If any stain lay on his knighthood, a lady, by touching the 'suspended shield with a wand, could debar him from a share in the jousting. And if, when he had entered the lists, he was rude to a lady, or broke in any way the etiquette of the tilt-yard, he was beaten from the lists with the ashwood lances of the knights.

The simple joust⁸ was the shock of two knights, who gal-

loped with levelled spears at each other, aiming at breast or head, with the object either of unhorsing the antagonist, or, if he sat his charger well, of splintering the lance upon his helmet or his shield. The mellay⁸ hurled together, at the dropping of the prince's baton, two parties of knights, who lacked away at each other with axe and mace and sword, often gashing limbs and breaking bones in the wild excitement of the fray. Bright eyes glanced from the surrounding galleries upon the brutal sport; and when the victor, with broken plume, and dusty, battered, red-splashed armour, dragged his weary or wounded limbs to the footstool of the beauty who presided as Queen over the festival, her white hands decorated him with the meed of his achievements.

The Normans probably dined at nine in the morning. When they rose they took a light meal; and ate something else after their day's work, immediately before going to bed. Goose and garlic formed a favourite dish. Their cookery was more elaborate, and, in comparison, more delicate, than the preparations for an English feed; but the character for temperance, which they brought with them from the Continent, soon vanished.

The poorer classes hardly ever ate flesh, living principally on bread, butter, and cheese;—a social fact which seems to underlie that usage of our tongue by which the living animals in field or stall bore English names—ox, sheep, calf, pig, deer; while their flesh, promoted to Norman dishes, rejoiced in names of French origin—beef, mutton, veal, pork, venison. Round cakes, piously marked with a cross, piled the tables, on which pastry of various kinds also appeared. In good houses cups of glass held the wine, which was borne from the cellar below in jugs.

Squatted around the door or on the stair leading to the Norman dining-hall, which was often on an upper floor, was a crowd of beggars or lickers,⁹ who grew so insolent in the days of Rufus, that ushers, armed with rods, were posted outside to beat back the noisy throng, who thought little of snatching the dishes as the cooks carried them to table!

The juggler,¹⁰ who under the Normans filled the place of the English gleeman, tumbled, sang, and balanced knives in the hall; or out in the bailey of an afternoon displayed the acquirements of his trained monkey or bear. The fool, too, clad in coloured patch-work, cracked his ribald jokes and shook his cap and bells at the elbow of roaring barons, when the board was spread and the circles of the wine began.

While knights hunted in the greenwood or tilted in the lists,

and jugglers tumbled' in the noisy hall, the monk in the quiet Scriptorium¹¹ compiled 'chronicles of passing events, copied valuable 'manuscripts, and painted rich borders and brilliant initials on every page. These 'illuminations form a valuable set of materials for our pictures of life in the Middle Ages.

Monasteries served many useful purposes at the time of which I write. Besides their 'manifest value as centres of study and literary work, they gave alms to the poor, a supper and a bed to travellers; their tenants were better off and better treated than the tenants of the nobles; the monks could store grain, grow apples, and cultivate their flower-beds with little risk of injury from war, because they had spiritual thunders at their call, which awed even the most 'reckless of the soldiery into a respect for sacred property.

Splendid structures those monasteries generally were, since that vivid taste for architecture which the Norman possessed in a high degree, and which could not find room for its display in the naked strength of the solid keep, 'lavished its entire energy and grace upon buildings lying in the safe shadow of the Cross. Nor was architectural taste the only reason for their magnificence. Since they were nearly all erected as offerings to Heaven, the religion of the age impelled the pious builders to spare no cost in decorating the 'exterior with fret-work and sculpture of Caen stone,¹² the interior with gilded 'cornices and windows of painted glass.

As schools, too, the monasteries did no trifling service to society in the Middle Ages. In addition to their influence as great centres of learning, English law had enjoined every mass-priest to keep a school in his parish church, where all the young 'committed to his care might be instructed. This custom continued long after the Norman Conquest. In the Trinity College Psalter we have a picture of a Norman school, where the pupils sit in a circular row around the master as he lectures to them from a long roll of manuscript. Two writers sit by the desk, busy with copies resembling that which the teacher holds.

The youth of the middle classes, 'destined for the cloister or the merchant's stall, chiefly thronged these schools. The 'aristocracy cared little for book-learning. Very few indeed of the barons could read or write. But all could ride, fence, tilt, play, and carve extremely well; for to these accomplishments many years of pagehood and squirehood were given.

The only Norman coin we have is the silver penny. Round halfpence and farthings were probably issued. As in Old English

days, the gold was foreign. In the reign of the Conqueror, and for some time afterwards, tax-collectors and merchants reckoned money after the English fashion.

W. F. COLLIER.

aristoc'racy, nobility.
betok'ened, indicated.
chron'icles, annals.
commit'ted, intrust'ed.
cor'nices, mould'ings.
dec'orated, adorned'.
des'tined, intend'ed.
dissec'tion, cutting up.
elab'orate, minute'.
excite'ment, commo'tion.
exte'rior, out'side.
familiar, well known.
fe'alty, alle'giance.

hus'bandry, ag'riculture.
illumina'tions, illustra'tions.
lav'ished, squan'dered.
man'aged, contrived'.
man'ifest, ev'ident.
man'uscripts, writ'ings.
meed, reward'.
mere, lake.
palisade, fence.
per'forated, pierced.
priv'ilege, right.
reck'less, heed'less.

reck'oned, calculated.
rejoiced', glo'ried.
resound'ed, ech'oed.
retain'ers, adhe'rents.
rib'al'd, vul'gar.
scientif'ic, systemat'ic.
snatch'ing, seiz'ing.
suspend'ed, up-hung.
tem'perance, ab'stinance.
ten'e'ments, lands and houses.
tour'na'ment, tilt.
van'ished, disappear'ed'.

¹ **Keep**, the tall square tower forming the strongest and securest part of the castle; called also the *donjon*, or master-tower. [Lat. *dominio*, from *dominus*, a lord.] The under-ground part of the *donjon* was used as a prison; hence *dungeon*.

² **Portcullis**, a huge gate of crossed timbers hung in the gateway of a castle, where it could be let down suddenly to bar the entrance.

³ **O'riel**, a large projecting window forming a *recess* in the room, usually richly decorated, and filled with stained glass. *Oriel* means literally a portico, and was applied originally to a recess at the end of a Gothic hall.

⁴ **Frank'lin**, a freeholder. [Fr. *franc*, Ger. *frank*, free.]

⁵ **Jesses**, short straps.

⁶ **The author of "Ivanhoe,"** Sir Walter Scott.—*Ivanhoe*, one of his most fascinating romances, is a story of the times of Richard I., the Lion Heart.

⁷ **Quintain**, an ancient tilt-board, consisting of a cross-bar turning upon an upright post, and having a broad board at the one end, and a bag full of sand at the other. If the horseman missed the board,

he was laughed at; and if he hit it, he had to avoid being knocked off his horse by the bag of sand which then swung round to his back.

⁸ **Joust (joost), mellay**.—The former was tilting in sport; the latter was tilting in earnest. Both are French words, as nearly all the words in the language of chivalry are. "Joust" is from *jouster*, *jouter*, to come together; whence Eng. *jostle*. "Mellay" is from *mêlée* (*may-lay*), a confused crowd, from *mêler*, to mix.

⁹ **Lickers**, that is, gluttons. [Old Fr. *lescheur*, Ger. *lecken*, to lick; whence Eng. *lickerish*, dainty, nice in food.]

¹⁰ **Juggler**, that is *lit*, *joker*. [Fr. *jongleur*, fun; Lat. *jocus*, a joke or jest.]

¹¹ **Scripto'rium**, that is, writing-room. From Lat. *scriptor*, a writer; *scribere*, to write.

¹² **Caen stone**, a fine white stone found near Caen in Normandy, which is built of it. The stone is exported to great distances on account of its beauty. Caen was at one time the capital of the dukedom of Normandy in France; and there William the Conqueror and his Queen are buried.

QUESTIONS.—What did the structure of Norman castles betoken? How were they protected from attacks? What was the oath of fealty? How was a Norman keep furnished? In what out-door sports did the Normans engage? On what occasions were tournaments held? What was the difference between a *joust* and a *mellay*? What social fact underlies the distinction between *ox*, *sheep*, &c., and *beef*, *mutton*, &c.? Who were the jugglers? What useful purposes did monasteries serve in those times? What is the difference in architecture between the castles and the monasteries? How is this to be explained? What classes of society were taught in the schools of the Middle Ages? Why not the aristocracy? What is the only Norman coin we have? How was money reckoned after the Norman Conquest?

SIR ROGER DE COVERLEY.

HAVING often received an invitation from my friend Sir Roger de Coverley to pass away a month with him in the country, I last week accompanied him thither, and am settled with him for some time at his country house, where I intend to form several of my ensuing speculations. Sir Roger, who is very well acquainted with my humour, lets me rise and go to bed when I please, dine at his own table or in my chamber as I think fit, sit still and say nothing without bidding me be merry.....

I am the more at ease in Sir Roger's family, because it consists of sober and staid persons; for as the knight is the best master in the world, he seldom changes his servants; and as he is beloved by all about him, his servants never care for leaving him: by this means his domestics are all in years, and grown old with their master. You would take his *valet-de-chambre*¹ for his brother, his butler is gray-headed, his groom is one of the gravest men that I have ever seen, and his coachman has the looks of a privy councillor.....

I could not but observe with a great deal of pleasure the joy that appeared in the countenances of these ancient domestics, upon my friend's arrival at his country seat. Some of them could not refrain from tears at the sight of their old master; every one of them pressed forward to do something for him, and seemed discouraged if they were not employed.

At the same time, the good old knight, with a mixture of the father and the master of the family, tempered the inquiries after his own affairs with several kind questions relating to themselves. His humanity and good nature engage everybody to him, so that when he is pleasant upon² any of them, all his family are in good humour, and none so much so as the person whom he diverts himself with; on the contrary, if he coughs, or betrays any infirmity of old age, it is easy for a stander-by to observe a secret concern in the looks of all his servants.....

My chief companion, when Sir Roger is diverting himself in the woods or the fields, is a very venerable man, who is ever with Sir Roger, and has lived at his house in the nature of a chaplain above thirty years. This gentleman is a person of good sense and some learning, of a very regular life and obliging conversation. He heartily loves Sir Roger, and knows that he is very much in the old knight's esteem, so that he lives in the family rather as a relation than as a dependant.....

My friend Sir Roger has often told me, with a great deal of mirth, that at his first coming to his estate he found three parts of his house altogether useless : that the best room in it had the reputation of being haunted, and by that means was locked up ; that noises had been heard in his long gallery, so that he could not get a servant to enter it after eight o'clock at night ; that the door of one of his chambers was nailed up, because there went a story in the family that a butler had formerly hanged himself in it ; and that his mother, who lived to a great age, had shut up half the rooms in the house, in which either her husband, a son, or a daughter had died.

The knight, seeing his habitation reduced to so small a compass, and himself in a manner shut out of his own house, upon the death of his mother ordered all the apartments to be flung open, and exorcised³ by his chaplain, who lay in every room, one after another, and by that means dissipated the fears which had so long reigned in the family.....

My friend Sir Roger, being a good Churchman, has beautified the inside of his church with several texts of his own choosing. He has likewise given a handsome pulpit-cloth, and railed in the communion table at his own expense. He has often told me, that at his coming to his estate he found his parishioners very irregular ; and that in order to make them kneel and join in the responses, he gave every one of them a hassock and a Common Prayer Book, and at the same time employed an itinerant singing-master to instruct them rightly in the tunes of the psalms, upon which they now very much value themselves.

As Sir Roger is landlord to the whole congregation, he keeps them in very good order, and will suffer nobody in it to sleep besides himself ; for if by chance he has been surprised into a short nap at sermon, upon recovering out of it he stands up and looks about him, and if he sees anybody else nodding, he either wakes them himself, or sends his servant to them.

Several other of the old knight's particularities break out upon these occasions. Sometimes he will be lengthening out a verse in the singing-psalms, half a minute after the rest of the congregation have done with it ; sometimes, when he is pleased with the matter of his devotion, he pronounces Amen three or four times to the same prayer ; and sometimes he stands up when everybody else is kneeling, to count the congregation, or see if any of his tenants are missing.

I was yesterday very much surprised to hear my old friend,

in the midst of the service, calling out to one John Matthews to mind what he was about, and not disturb the congregation. This John Matthews, it seems, is remarkable for being an idle fellow, and at that time was kicking his heels for his 'diversion. The authority of the knight, though exerted in that odd manner which accompanies him in all circumstances of life, has a very good effect upon the parish, who are not 'polite enough to see anything 'ridiculous in his behaviour; besides that the general good sense and worthiness of his character make his friends observe these little singularities as foils that rather set off⁴ than blemish his good qualities.

As soon as the sermon is finished, nobody presumes to stir till Sir Roger is gone out of the church. The knight walks down from his seat in the chancel⁵ between a double row of his tenants, that stand bowing to him on each side; and he every now and then 'inquires how such an one's wife, or mother, or son, or father does, whom he does not see at church; which is understood as a secret 'reprimand to the person that is absent.

The chaplain has often told me that, upon a catechising day, when Sir Roger has been pleased with a boy that answers well, he has ordered a Bible to be given him next day for his encouragement; and sometimes accompanies it with a fitch of bacon to his mother. Sir Roger has likewise added £5 a year to the clerk's⁶ place; and, that he may encourage the young fellows to make themselves perfect in the Church service, has promised, upon the death of the present 'incumbent, who is very old, to bestow it according to merit. JOSEPH ADDISON.^(b)

ân'cient, old-fash'ioned.
beau'tified, ornament'ed.
châm'bers, apart'ments.
com'pass, dimen'sions.
coun'tenances, fa'ces.
devo'tion, prayer.
discour'aged, disappoint'ed
dis'sipated, dispelled'.
diver'sion, amuse'ment.
domes'tics, ser'vants.
ensu'ing, fol'lowing.

habita'tion, dwell'ing.
has'sock, kneel'ing-stool.
human'ity, kind'ness.
incum'bent, hold'er.
infirm'ity, weak'ness.
inquires', asks.
invita'tion, request'.
itin'erant, travell'ing.
oblig'ing, cour'teous.
observe', remark'.
particular'ities, odd'ities.

polite', pol'ished.
pronounc'es, repeats'.
rep'r'imand, reproof'.
reputa'tion, cha'racter.
respons'es, an'swers.
ridic'ulous, absurd'.
specula'tions, medita'tions.
surprised', thrown unex-
pect'edly.
tem'pered, mi'ngled.
ven'erable, reverend.

¹ Valet-de-chambre (*valley-de-shony-br*), a chamber-servant; a footman.

² Is pleasant upon, makes fun of.

³ Ex'orcised, freed of evil spirits.

⁴ Foils that rather set off.—Jewellers are accustomed to set gold or silver leaf behind transparent jewels, in order to give them colour or lustre; this leaf is called a *foil*. [Fr. *feuille*, Lat. *folium*, a leaf;

Eng. *tin-foil*.] Hence anything used to show another thing to greater advantage is called a *foil*.

⁵ Chan'cel, the principal part of a church, where the altar or communion table is placed.

⁶ Clerk, the lay officer who leads the responses of the congregation in the Episcopal service.

OLD ENGLISH AND NORMAN-FRENCH.

THE proud Norman was not successful in imposing his own tongue upon the subjugated nation, when the fatal day of Hastings placed the British realm in the hands of his race. In vain was Norman-French spoken from throne, pulpit, and judgment-seat; in vain did the Norman nobles long disdain to learn the language of the enslaved English. For a time the two tongues lived side by side, though in very different conditions: the one, the language of the master, at court and in the castles of the soldiers who had become noble lords and powerful barons; the other, the language of the conquered, spoken only in the lowly huts of the subjugated people.

The Norman altered and increased the latter, but he could not extirpate it. To defend his conquest,¹ he took possession of the country; and, master of the soil, he erected fortresses and castles, and attempted to introduce new terms. The universe and the firmament, the planets, comets, and meteors, the atmosphere and the seasons, all were impressed with the seal of the conqueror. Hills became mountains, and dales valleys; streams were called rivers, and brooks rivulets; waterfalls changed into cascades, and woods into forests.

The deer, the ox, the calf, the swine, and the sheep appeared on his sumptuous table as venison, beef, veal, pork, and mutton. Salmon, sturgeon, lamprey, and trout became known as delicacies; serpents and lizards, squirrels, falcons and herons, cocks and pigeons, stallions and mules, were added to the animal kingdom.

Earls and lords were placed in rank below his dukes and marquises. New titles and dignities, of viscount, baron, and baronet, squire and master, were created; and the mayor presided over the English aldermen and sheriff; the chancellor and the peer, the ambassador and the chamberlain, the general and the admiral headed the list of officers of the government.

The king alone retained his name, but the state and the court became French: the administration was carried on according to the constitution; treaties were concluded by the ministers in their cabinet, and submitted for approval to the sovereign; the privy council was consulted on the affairs of the empire, and loyal subjects sent representatives to parliament. Here the members debated on matters of grave importance, on peace and war, ordered the army and the navy, disposed of the national treasury, contracted debts, and had their sessions and their parties.

. At brilliant feasts and splendid tournaments collected the flower of chivalry; magnificent halls, where beauty and delicious music enchanted the assembled nobles, gave new splendour to society, polished the manners and excited the admiration of the ancient inhabitants; who, charmed by such elegance, recognised in their conquerors persons of superior intelligence, admired them, and endeavoured to imitate their fashions.

But the dominion of the Norman did not extend to the home of the Englishman;² it stopped at the threshold of his house: there, around the fireside in his kitchen and the hearth in his room, he met his beloved kindred; the bride, the wife, and the husband, sons and daughters, brothers and sisters, tied to each other by love, friendship, and kind feelings, knew nothing dearer than their own sweet home.

The Englishman's flocks, still grazing in his fields and meadows, gave him milk and butter, meat and wool; the herdsman watched them in spring and summer; the ploughman drew his furrows, and used his harrows, and, in harvest, the cart and the flail; the reaper plied his scythe, piled up sheaves and hauled his wheat, oats, and rye to the barn. The waggoner drove his wain, with its wheels, felloes, spokes, and nave; and his team bent heavily under their yoke.

In his trade by land and sea, he still sold and bought; in the store or the shop, the market or the street, he cheapened his goods and had all his dealings, as pedler or weaver, baker or cooper, saddler, miller, or tanner. He lent or borrowed, trusted his neighbour, and with skill and care thrived and grew wealthy. Later, when he longed once more for freedom, his warriors took their weapons, their axes, swords, and spears, or their dreaded bow and arrow. They leaped without stirrup into the saddle, and killed with dart and gavelock.³ At other times they launched their boats and ships, which were still pure English from keel to deck and from the helm or the rudder to the top of the mast, afloat and ashore, with sail or with oar.

As his fathers had done before him in the land of his birth, the Englishman would not merely eat, drink, and sleep, or spend his time in playing the harp and the fiddle, but by walking, riding, fishing, and hunting, he kept young and healthy; while his lady with her children were busy teaching or learning how to read and to write, to sing and to draw. Even needle-work was not forgotten, as their writers say that "by this they shone most in the world." The wisdom of later ages was not known then, but they had their home-spun sayings, which by all mankind are yet

looked upon as true wisdom, as : God helps them that help themselves : Lost time is never found again : When sorrow is asleep, wake it not !

Thus the two languages, now 'contending and then mingling with each other, continued for nearly four hundred years side by side in the British kingdom ; the Norman-French, an 'exotic plant, deprived of its native soil and heat, flourishing for a time, but gradually withering and fading away ; the language of the subject, like an 'indigenous tree, trimmed by the rough storm, grafted in many a branch by an unskilful hand, but still giving shade with its wide-spreading foliage, and bearing flowers and fruit in abundance.

The Normans had conquered the land and the race, but they struggled in vain against the language. It conquered them in its turn, and, by its spirit, converted them into Englishmen. In vain did they haughtily refuse to learn a word of that despised tongue, and 'indignantly asked, in the words of the minister of Henry III., "Am I an Englishman, that I should know these characters and these laws?" In vain it was that William and his successors filled bishopric and abbey with the most learned and best educated men of France, and 'deposed English 'dignitaries, like Wulstan, Bishop of Worcester, because he was an "idiot who did not know the French tongue, and could not aid in the king's council."

Neither sufferings nor death itself, apparently, could teach those haughty Normans the necessity of learning the language of their new home. When in the year 1080 some Northumbrians presented to Vaulcher (Walchere), Bishop and Lord of Durham (Dunholme), an humble and 'submissive request, the proud prelate required, in answer to their request, that they should pay four hundred pounds of silver. Their astonished but determined spokesman asked for leave to consult with his associates, but, knowing the bishop's entire ignorance of English, he said to his friends: "Short rēd,⁴ gōd rēd; Slee ye se bisceop!"⁵ and immediately they fell upon the bishop and slew him and one hundred men of French and Flemish blood !.....

Thus we see that conquest cannot 'exterminate a language, nor drive it from its native soil. The Normans, with all their power and strength, lords of the land, masters of the people, and with every advantage on their side, could not destroy a highly cultivated, ancient and national tongue, like the English. It rose against them and conquered them in its turn.....

The Normans could, as conquerors, seat their Norman-French

on the throne and on the judge's bench, at the dais of the noble and in the 'refectory of the monk; but they found the door of manor and of cottage jealously guarded. Their number, moreover, was too small to allow them to spread all over the kingdom. The few Norman soldiers and their families, immured in castles, and too haughty to associate with the despised English, anxiously preserved their connection with France, where many still possessed estates, and held no intercourse but with their own countrymen.

The Norman-French tongue was, therefore, neither carried to all parts of the kingdom, nor supported by the aid of 'intellectual superiority. The Old English speech, on the other hand, had been carefully guarded and preserved by the people; it had never lost its hold upon their affections; 'persecution and the necessity of concealment had made it but all the dearer to the suffering race. It now made its way, slowly and almost 'imperceptibly, but with unerring and unceasing 'perseverance, from rank to rank, until it finally reached the very court from which it had been so 'ignominiously driven, and seated itself once more upon the throne of England!

DE VERE.

administra'tion, execu-
apprôv'al, sanc'tion. [tive.
contend'ing, struggling
contract'ed, incurred'.
deposed', degrad'ed
dig'nitaries, men of rank.
domin'ion, rule.
dread'ed, feared.
enchant'ed, fascinat'ed.
exot'ic, for'eign.
exter'minate, cast out.

extir'pate, up-root'.
fel'loes, rims.
fir'mament, heavens.
forgot'ten, overlooked'.
ignomin'iously, shame'-
fully.
impercept'ibly, unnoticed.
impôs'ing, forc'ing.
increased', enlarged'.
indig'enous, na'tive
indig'nantly, an'grily.

intellec'tual, men'tal.
nave, centre-block.
persecu'tion, oppres'sion.
persever'ance, persist'-
ence.
refec'tory, dining-hall.
rud'der, blade of the helm
sub'jugated, subdued'.
submis'sive, hum'ble.
sump'tuous, luxu'rious.
wain, waggon.

¹ Defend . . conquest.—The words printed in italics in this and the four following paragraphs are of *Norman-French* origin.

² Home . . Englishman.—The words printed in italics in this and the three following paragraphs are native *English* (so called *Anglo-Saxon*) words.

³ Gave lock, a spear or javelin; also a pointed bar of iron used as a crowbar.

⁴ Short rêd, &c.—That is, "Short advice is good advice; Slay ye the bishop."

⁵ Bisceop, bishop, though an Old English word, is of classical origin, as is also the office which it names. The English translation of the word is *over-seer*. [Gr. *episkopos*; Lat. *episcopus*.] The French *evêque* is from the same root, and the two words show how widely the derivatives of the same word in two languages may differ:—Lat. *Episcopus*; O. Eng. *bisceop*, Eng. *bishop*; Ital. *vescovo*; O. Fr. *evesque*, Fr. *evêque*.

QUESTIONS.—What means did the Normans take to impose their language upon the English? With what result? Mention things and classes of things bearing Norman names. Where did the dominion of the Norman not extend? Mention classes of things bearing native English names. How long did the two languages exist side by side? What is the story of Walchere of Durham? What prevented the spread of Norman-French all over the kingdom? What was the result of the struggle between the two languages?

VENICE.

WHEN At'tila, King of the Huns,¹ devastated Italy in the middle of the fifth century, the citizens of Aquilei'a, Pad'ua, and other towns on the Adriatic, fled from the invader.

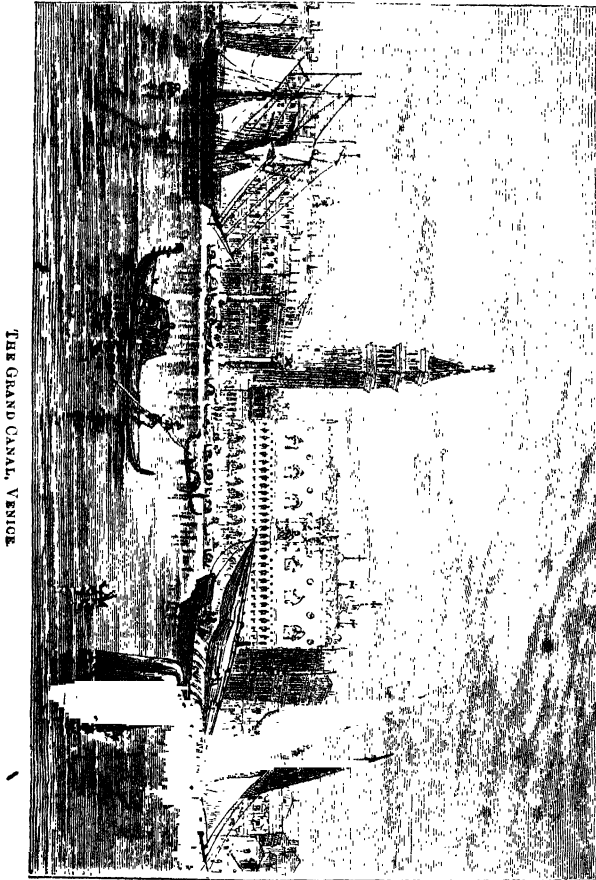
At the head of the gulf are about a hundred little islands, formed of mud and sand swept down by the rivers which drain the plains of Northern Italy. These islands are surrounded by shallow water, and protected from the waves by long bars of sand, between which by various narrow channels vessels pass out and in. Upon these islands the Vene'ti driven from the mainland established themselves, and there founded a city in the midst of the waters.

In their new home they missed the vines and the olives which clad their native slopes, as well as the bees and the cattle which they used to tend. The waste of wild sea-moor on which they now dwelt offered only a few patches of soil fit for cultivation, and these yielded but a scanty crop of stunted vegetables. The only supplies which Nature furnished were the fish which swarmed in the waters, and the salt which encrusted the beds of the lagoons.²

A more miserable, hopeless plight than that of the inhabitants of these little islands, it would be hard to conceive; and yet out of their slender resources they built up Venice! The sand-banks which they contested with the sea-fowl became the site of a great and wealthy city; and their fish and salt formed the original basis of a world-wide commerce. Their progress, however, was slow and laborious. Seventy years after the settlement was formed, they were still obliged to toil hard for a bare subsistence.

Some distinctions of rank—a tradition of their former condition—were maintained amongst them, but all were reduced to an equality of poverty. Fish was the common, almost the only, food of all classes. None could boast a better dwelling than a rude hut of mud and osiers. Their only treasure consisted of salt, which they transported to the mainland, receiving in exchange various articles of food and clothing; and, not less important, wood for boat-building. The security in which they pursued these humble occupations was, however, envied by Italians who were groaning under the tyranny and rapine of the barbarians, and the island-colony received accessions of population.

The Venetians, who could scarcely stir from one spot to another except by water, became the most expert of seamen. Their vessels not only threaded the 'tortuous courses of the rivers and



THE GRAND CANAL, VENICE.

canals into the heart of the peninsula, but visited all the harbours of the Adriatic; and, gaining confidence, pushed out into the Mediterranean, and opened up a trade with Greece and Con-

stantinople. Thus Venice became the port of Italy and Germany, and the means of communication between them and the seat of the Roman Empire in the East.³

Every year the ships of the Republic grew larger and more numerous. In the fourteenth century it had afloat a fleet of three thousand merchantmen ; but of these some were only of ten tons burden, while few exceeded one hundred tons. Fishing-boats were probably included in the estimate. In addition, there were about forty war-galleys, carrying eleven thousand men ; which were kept cruising in different directions, for the protection of Venetian commerce.

The largest of the galleys was the famous *Ducentaur*,⁴ which, with its exterior of scarlet and gold, its long bank of burnished oars, its deck and seats inlaid with precious woods, its gorgeous canopy and throne, rivalled the magnificence of Cleopatra's^(b) barge. It was in this splendid vessel that the Doge⁵ went annually in state to celebrate the marriage of Venice⁶ with the Adriatic, by dropping a ring into its waters ; thus symbolizing the fact that a people whose habitations might be assigned either to earth or to water, were equally at home on both.

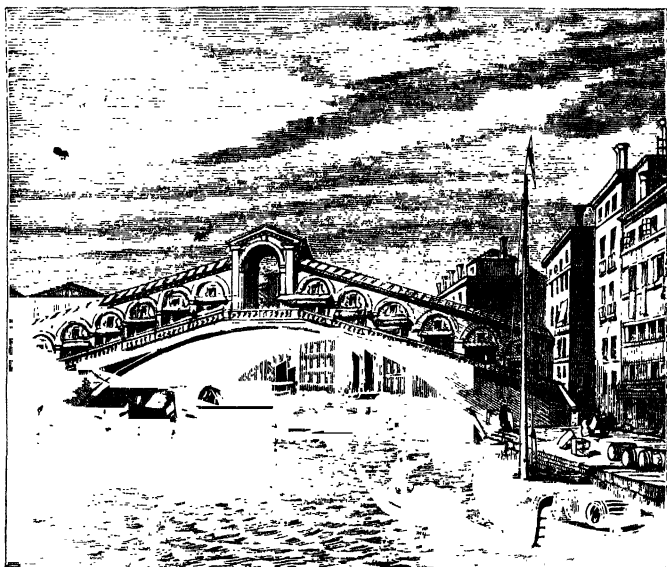
With an extensive commerce the Venetians combined several manufactures. They not only prepared immense quantities of salt, and cured fish, but found in their sands the material of that exquisite glass, so pure, and yet so rich in hue, with which their name is still associated. The furnaces from which this beautiful product emanated were congregated, as they still are, in the island of Mura'no.

There were also brass and iron foundries ; and the armourers of Venice were widely celebrated for the strength and beauty of their weapons, breastplates, helmets, and bucklers. The weaving of cloth-of-gold was another important industry. This costly and gorgeous material was in great demand in the Courts of France and Germany. Charlemagne himself was rarely seen without a robe of Venetian pattern and texture.

It was thus that Venice grew rich. The mud huts gradually gave place to palaces, and the peasants were transformed into haughty nobles. "The Venetians are grown so proud," says an old traveller in the fifteenth century, "that when one has a son, the saying goes, 'A lord is born into the world !'" In the beginning of the same century it was reckoned that there were at least a thousand nobles in the city, whose yearly incomes ranged from 4,000 to 70,000 ducats, and that at a time when 3,000 ducats bought a palace.

At the end of the twelfth century the population was 70,000, exclusive of persons in holy orders. Two hundred years later it had increased nearly fourfold.

Venice was then, as now, a city intersected by innumerable water highways, bordered by marble mansions mingled with tenements of wood, studded with churches, and having public squares confined on three sides by houses, while on the remaining side a quay overlooked the sea. The streets bustled with



THE BRIDGE OF THE RIALTO.

traffic. Gon'dolas⁷ skimmed rapidly along the canals. The merchants assembled on the Rial'to,⁸ and the money-changers spread their tables under the shadow of the Campanile.⁹

The Bank of Venice—the first institution of the kind ever established—the credit of which was guaranteed by the State, attested at once the wisdom and the commercial enterprise of the City of the Waters. In the shops, every article of use, luxury, or ornament, could be obtained. Contractors of all kinds and of different nations resorted thither, and the ships of every flag loaded and unloaded at the quays.

The rivalry of Gen'oa forms a large element in the history of Venice. The two republics were deadly and 'relentless enemies. Whenever their ships met there was a fight; and in a narrow sea like the Mediterranean, where in some cases they 'frequented the same ports, they met very often.

In 1261 a rupture with the Byzantine government at Constantinople led to the exclusion of the Venetians* from the trade of the Black Sea. Genoa for a time was in the ascendant. A 'desperate war ensued, which at the end of four years terminated in the triumph of the Venetians, whose 'maritime and commercial supremacy was thus indicated. The object of the struggle—the trade of the Black Sea—was, however, lost to the victors as well as to the vanquished; for the Turks 'intervened and imposed their paralyzing influence on the commerce and industry of those parts. Within the Mediterranean, Venice remained without a rival. The blow which proved fatal to her influence came from without, and was as unexpected as it was 'inevitable. It was the discovery of a sea passage to India,¹⁰ which set aside the old caravan routes, of which Venice formed, as it were, the European centre.

J. H. FYFE.

acces'sions, addit'ions.
attest'ed, evidenc'ed
celebrate, solemnize'.
chan'nels, pas'sages.
conceive', imagin'e.
con'fidence, assur'ance.
cruis'ing, sail'ing to and fro.
des'perate, fur'ious
dev'astated, laid waste.
em'anated, is'sued.
encrust'ed, coat'ed.

en'terprise, dā'ring
estab'lished, sett'led.
es'timate, calcula'tion.
exclu'sive, except'ing.
ex'quisite, beau'tiful.
frequent'ed, visit'ed
inev'itable, unavoi'd'able.
intersect'ed, cut up.
intervened', interposed'.
main'land, contin'ent.
mar'itime, nā'val.

orig'inal, pri'mary.
pat'tern, design'.
rap'ine, plun'der.
relent'less, implac'able.
stunt'ed, dwarfed.
subsist'ence, liv'ing.
symboliz'ing, typ'ify'ing.
ten'ements, houses.
text'ure, fabrica'tion.
tor'tuous, wind'ing.
transformed', changed'.

¹ At'tila, King of the Huns.—He ravaged the Eastern Empire 445–450 A. D.; and, having made peace with the Emperor Theod'osius II., prepared to invade the Empire of the West. In 451, he was defeated at Châlons, by Aët'ius, the Roman general, aided by Theod'oric the Ostro-Goth.

² Lagoons', marshes or lakes formed by the overflowing of the sea, and separated from it by banks of sand.

³ Roman Empire in the East.—The Empire was divided into eastern and western portions in 364 A. D., when two brothers began to reign.—Valentin'ian in the west, and Valens in the east.

* Bucentaur'.—The name is supposed to be a corruption of *Ducentorum*, the first state barge having been officially described as "*navigium ducentorum hominum*;"

that is, a ship for two hundred men. The last *Bucentaur*, which was destroyed by the French in 1797, was a galley one hundred feet in length, having two decks. In the lower, sat one hundred and sixty picked rowers. The upper deck comprised two magnificent galleries for the Doge's retinue, and a state saloon at the stern, which glittered with the ducal throne.

⁵ Doge (*Dōj*), the chief magistrate, or Duke of Venice. The chief ruler of Genoa bore the same title.

⁶ The marriage of Venice.—The ceremony took place on Ascension Day each year. Venice is said to have acquired the sovereignty of the Adriatic from Pope Alexander III. in 1170, who confirmed the concession by the gift of a ring of gold. It was after this that the ceremony of the mystical

marriage was introduced. Previously, the Doge had visited the Adriatic in state, and performed certain rites, according to the fashion of the age.

⁷ *Gon'dola*, a light flat-bottomed boat used as a public conveyance through the water-streets of Venice. Lord Byron describes it as "a coffin clapt in a canoe;" and Mr. S. Laing as a Thames wherry with the upper part of a mourning coach stuck amidships.

⁸ *The Rial'to*, a famous bridge in Venice, between the isle of *Rialto* (where Venice first sprang) and that of St. Mark. It, and the street leading to it, form the great-

est business thoroughfare in the city. The present bridge, which is of marble, was begun in 1588, and completed within two years. It is 72 feet wide, and is divided longitudinally into five parts,—two rows of shops, two narrow passages, and a broad passage (21 feet wide) in the middle.

⁹ *The Campanile* (*Campanella*), the Bell Tower of St. Mark's Cathedral. It is detached from the church, and rises to the height of 323 feet.

¹⁰ *Discovery of a sea passage to India*—by Vasco di Gama, in 1497. He established the first European settlement in India at Cochin, in 1502. (See p. 250.)

QUESTIONS.—When and by whom was Venice founded? What was the common food of the first settlers? What article did they export? What made them so expert as seamen? With what distant places did they ere long open up a trade? What was the largest of the Venetian galleys called? On what occasion was it used? In what manufactures did the Venetians excel? What was the population of Venice at the end of the twelfth and the fourteenth centuries respectively? What has Venice for streets? and what for carriages? Where did the merchants assemble? and the money-changers? What republic was a great rival of Venice? What gave Genoa the ascendancy for a time? What deprived both of the object of their struggle? What blow at last proved fatal to Venice?

VENICE.

THERE is a 'glorious city in the sea:
The sea is in the broad, the narrow streets,
• Ebbing and flowing; and the salt sea-weed
Clings to the marble of her 'palaces!
No track of men, no footsteps to and fro,
Lead to her gates: the path lies o'er the sea,
• Invisible; and from the land we went
As to a floating city,—steering in
And gliding up her streets as in a dream,
So smoothly—silently—by many a dome,
Mosque-like, and many a 'stately 'portico,
The statues ranged along an 'azure sky,—
By many a pile in more than Eastern pride,
Of old the 'residence of merchant-kings;
The fronts of some, though Time had 'shattered them,
Still 'glowing with the richest hues of art,
As though the wealth within them had run o'er.

ROGERS.

a'zure, fine blue.
ebb'ing, reced'ing.
glo'rious, illust'rious.
glow'ing, shin'ing.

invis'ible, not able to be
seen.
pal'aces, splen'did man'-
sions.

por'tico, en'trance.
res'idence, abode.
shat'tered, bro'ken.
state'ly, majes'tic.

THE CIRCULATION OF WATER.

THE simplest form of the circulation of matter is that which is presented by the watery vapour contained in the atmosphere. From this vapour the dews and rains are formed which refresh the scorched plant and fertilize the earth. The depth of dew which falls we cannot estimate. On summer evenings it appears in hazy mists, and collects on leaf and twig in sparkling pearls; but at early dawn it vanishes again unmeasured—partly sucked in by plant and soil, and partly dispelled by the youngest sunbeams. But the yearly rain-fall is easily noted. In Britain it averages about thirty inches in depth; and in Western Europe generally, it is seldom less than twenty inches. Among the Cumberland mountains, in some places a fall of two hundred inches a year is not uncommon; while among the hills near Calcutta, as much as five hundred and fifty inches sometimes falls within six months.

Now, as the whole of the watery vapour in the air, were it to fall at once in the form of rain, would not cover the entire surface of the Earth to a depth of more than five inches, how repeated must the rise and fall of this watery vapour be! To keep the air always duly moist, and yet to maintain the constant and necessary descent of dew and rain, the invisible rush of water upwards must be both great and constant. The ascent of water in this invisible form is often immediate and obvious, depending solely upon physical causes; but it is often also indirect, and being the result of physiological¹ or of chemical causes, is less generally perceptible. Thus:—

1. Water circulates abundantly between earth and air through the agency of purely *physical* causes. We see this when a summer shower falling upon our paved streets is speedily licked up again by the balmy winds, and wafted towards the region of clouds, ready for a new fall. But this form of circulation takes place on the greatest scale from the surface of the sea in equatorial regions, heated through the influence of the sun's rays. Thence streams of vapour are continually mounting upwards with the currents of ascending air; and with these they travel north and south, till colder climates precipitate them in dew, rain, or snow. Returned to the arctic or the temperate seas by many running streams, these precipitated waters are carried back again to the equator by those great sea-rivers which mysteriously traverse all oceans; and, when there, are ready to

rise again to repeat the same revolution. How often, since time began, may the waters which cover the whole Earth have thus traversed air and sea, taking part in the endless movements of 'inanimate nature !

2. Again : *physiological* causes, though in a less degree than the physical, are still very largely 'influential in causing this watery circulation. Thus the dew and rain which fall sink in part into the soil, and are thence drunk in by the roots of growing plants. But these plants spread out their green leaves into the dry air, and from numberless pores are continually 'exhaling watery vapour in an invisible form. From the leafy surface of a single acre in crop, it is calculated that from three to five millions of pounds of water are yearly exhaled in the form of vapour, in Britain ; while, on an average, not more than two and a half millions fall in rain. Whether the surplus thus given off be derived from dews or from springs, it is plain that this 'evaporation from the leaves of plants is one of the most important forms which the circulation of water assumes.

Animals take into their stomachs another portion of the same water, and, as a necessary 'function of life, are continually returning it into the air from their lungs and their insensibly reeking hides. About two pounds a day are thus discharged into the air by a full-grown man ; and larger animals probably give off more, in proportion to their size. Multiply this quantity by the number of animals which 'occupy the land surface of the globe, and the sum will show that this also is a form of watery circulation which, though less in absolute amount than the others I have 'mentioned, is yet of much importance in the 'economy of nature.

3. But water circulates also, in consequence of unceasing *chemical* operations, in a way which, if less obvious to the un-instructed, is, if possible, more beautiful and more interesting than the mere physical methods above described. The main substance of plants—their woody fibre—consists in large 'proportion of water. The same is true of the starch and sugar which are 'consumed by an animal. When the plant dies and 'decomposes in the air, the water is again set free from its woody stem. When the animal digests the starch and sugar, the water which these contain is 'discharged from its lungs and skin. Thus the living plant works up water into its growing substance, which water the decaying plant and the breathing animal again set free ; and thus a chemical 'circulation continually goes on, by which the same water is caused again and

again to 'revolve. Within a single hour it may be in the form of starch in my hand, be discharged as watery vapour from my lungs, and be again 'absorbed by the thirsty leaf to add to the substance of a new plant!

JAMES F. W. JOHNSTON.

absorbed', drunk in.	es'timate, cal'culate.	ob'vious, ev'ident.
abun'dantly, plen'tifully.	evapora'tion, disper'sion in	oc'cupy, inhabit.
circula'tion, rota'tion.	va'pour.	percep'tible, appa'rent.
consumed', swal'lowed.	exhāl'ing, breath'ing out.	precip'itate, throw
decompō'ses, separates in-	func'tion, du'ty.	down.
to el'ements.	inan'imate, life'less	propor'tion, degree'.
discharged', expelled'.	influen'tial, op'erative.	repeat'ed, fre'quent.
dispell'ed, dissipated.	maintain', uphold'.	revolve', cir'culate
econ'omy, sys'tem. tor	men'tioned, named	scorched, with'ered.
equato'rial, near the equa-	myste'riously, strange'ly.	uncom'mon, unu'sual.

¹ **Physiolog'ical**, that is, pertaining to the functions of organic bodies, both vegetable and animal. Thus evaporation and condensation in the air constitute a *physi-* *cal* cause, inhalation and exhalation by plants and animals form a *physiological* cause, decomposition of matter forms a *chemical* cause, of the circulation of water

QUESTIONS.—What proves the frequency with which the rise and fall of watery vapour must take place? To what three causes is the ascent of water into the atmosphere due? Give an example of the circulation of water due to purely physical causes. Show how physiological causes operate. Give an example of the chemical operations which cause water to circulate.

GINEVRA.

If thou shouldst ever come to Mod'ena,¹
 Stop at a palace near the Reggio Gate,
 Dwelt in of old by one of the Orsini.²
 Its noble gardens, 'terrace above terrace,
 And numerous fountains, statues, 'cypresses,
 Will long 'detain thee; but before thou go,
 Enter the house—prythee, forget it not—
 And look a while upon a picture there.

'Tis of a lady in her earliest youth;—
 She sits 'inclining forward as to speak,
 Her lips half open, and her finger up,
 As though she said, "Beware!"³ her vest of gold
 Broided with flowers, and clasped from head to foot—
 An emerald stone in every golden clasp;
 And on her brow, fairer than alabaster,
 A coronet of pearls. But then her face,
 So lovely, yet so arch, so full of mirth,
 The 'overflowings of an 'innocent heart—
 It haunts me still, though many a year has fled.
 Like some wild melody!—Alone it hangs

Over a mouldering 'heir-loom, its companion,
An oaken chest half eaten by the worm.

She was an only child ; from infancy
The joy, the pride, of an 'indulgent sire.
Her mother dying of the gift she gave,
That precious gift, what else remained to him?
The young Ginevra was his all in life ;
Still as she grew, for ever in his sight.
She was all 'gentleness, all 'gaiety,
Her pranks the favourite 'theme of every tongue.
But now the day was come, the day, the hour ;
And in the 'lustre of her youth, she gave
Her hand, with her heart in it, to Francesco.

- Great was the joy ; but at the 'bridal feast,
- When all sat down, the bride was wanting there—
Nor was she to be found ! Her father cried,
" 'Tis but to make a trial of our love ! "
- And filled his glass to all ; but his hand shook,
And soon from guest to guest the panic spread.
'Twas but that instant she had left Francesco,
Laughing and looking back, and flying still,
Her ivory tooth 'imprinted on his finger.
But now, alas ! she was not to be found ;
Nor from that hour could anything be guessed,
But that she was not ! Weary of his life,
Francesco flew to Venice, and forthwith
Flung it away in battle with the Turk.
Orsini lived ; and long mightst thou have seen
An old man wandering as in 'quest of something,
Something he could not find—he knew not what.
When he was gone, the house remained a while
Silent and 'tenantless, then went to strangers.

- Full fifty years were past, and all forgot,
When on an idle day, a day of search
- 'Mid the old lumber in the gallery,
That mouldering chest was noticed ; and 'twas said
By one as young, as thoughtless, as Ginevra,
" Why not remove it from its lurking-place ? "
- 'Twas done as soon as said ; but on the way
It burst—it fell ; and lo, a skeleton !
And here and there a pearl, an emerald-stone,
A golden clasp, clasping a shred of gold.
All else had perished—save a 'nuptial ring,
And a small seal, her mother's 'legacy,
Engraven with a name, the name of both—

"GINEVRA." There, then, had she found a grave!

Within that chest had she concealed herself,

Fluttering with joy, the happiest of the happy;

When a spring-lock, that lay in 'ambush there,

Fastened her down—for ever!

ROGERS. ^(b)

am'bush, conceal'ment.

brid'al, wed'ding.

cy'presses, ev'ergreens.

detain', oc'cupy.

flut'tering, thrill'ing.

gai'ety, spright'liness.

gen'tleness, ten'derness.

heir'-loom, fam'ily rel'ic.

imprint'ed, indent'ed.

inclin'ing, bend'ing.

indul'gent, kind.

in'nocent, guileless.

leg'acy, bequest'.

lus'tre, brill'iancy.

mould'ering, crum'bling.

nup'tial, marriage.

overflow'ings, out'pour

quest, search. (ing)

ten'antless, uninhab'ited.

ter'race, plat'form.

theme, sub'ject.

¹ Mod'ena, capital of the province of Emilia, in the north of Italy, & the former Duchy of Modena. The Amilian Way (Rimini to Piacenza) passes through it, and forms its principal street; at the north-

western extremity of which is the "Reggio Gate," where the Way passes on to Reggio.

² Orsi'ni, a celebrated Roman family during the Middle Ages. It yielded two popes, and a great number of cardinals.

QUESTIONS —To what family did Ginevra belong? Why was she very precious to her father? How was her marriage interrupted? What was her fate? When was it discovered? What became of Francesco? What is the starting point of the poem?

GOD THE AUTHOR OF NATURE.

THERE lives and works

A soul in all things, and that soul is God.

The beauties of the wilderness are his,

That make so gay the solitary place,

Where no eye sees them. And the fairer forms,

That cultivation glories in, are his.

He sets the bright procession on its way,

And marshals all the order of the year;

He marks the bounds which Winter may not pass,

And blunts his pointed fury; in its case,

Russet and rude, folds up the tender germ

Uninjured, with inimitable art;

And, ere one flowery season fades and dies,

Designs the blooming wonders of the next.

The Lord of all, himself through all diffused,

Sustains, and is the life of all that lives.

COWPER.

RHETORICAL PASSAGES.

PART II.

THE DIGNITY OF LABOUR.

THE dignity of labour! Consider its achievements! Dismayed by no difficulty, shrinking from no exertion, exhausted by no struggle, ever eager for renewed efforts in its persevering promotion of human happiness, "clamorous Labour knocks with its hundred hands at the golden gate of the morning," obtaining each day, through succeeding centuries, fresh benefactions for the world!

Labour clears the forest, and drains the morass, and makes the wilderness rejoice and blossom as the rose. Labour drives the plough, and scatters the seed, and reaps the harvest, and grinds the corn, and converts it into bread, the staff of life. Labour, tending the pastures and sweeping the waters, as well as cultivating the soil, provides with daily sustenance the thousand millions of the family of man.

Labour moulds the brick, and splits the slate, and quarries the stone, and shapes the column, and rears, not only the humble cottage, but the gorgeous palace, the tapering spire, and the stately dome.

Labour, diving deep into the solid earth, brings up its long-hidden stores of coal, to feed ten thousand furnaces, and in millions of habitations to defy the winter's cold. Labour explores the rich veins of deeply-buried rocks, extracting the gold, the silver, the copper, and the tin. Labour smelts the iron, and moulds it into a thousand shapes for use and ornament,—from the massive pillar to the tiniest needle, from the ponderous anchor to the wire-gauze, from the mighty fly-wheel of the steam-engine to the polished purse-ring or the glittering bead.

Labour hews down the gnarled oak, and shapes the timber, and builds the ship, and guides it over the deep, plunging through the billows and wrestling with the tempest, to bear to our shores the produce of every clime. Labour brings us Indian rice and American cotton; African ivory and Greenland oil; fruits from the sunny South and furs from the frozen North; tea from the East and sugar from the West;—carrying, in exchange, to every land the products of British industry and British skill. Labour, by the universally spread ramifica-

tions of trade, 'distributes its own treasures from country to country, from city to city, from house to house, conveying to the doors of all, the necessities and luxuries of life; and, by the 'pulsations of an 'untrammelled commerce,¹ maintaining healthy life in the great social system.

Labour, fusing opaque particles of rock,² produces transparent glass, which it moulds and polishes, and combines so wondrously, that sight is restored to the blind; while worlds, before invisible from distance, are brought so near as to be weighed and measured with unerring exactness; and atoms, which had escaped all 'detection from their minuteness, reveal a world of wonder and beauty in themselves.

Labour, possessing a secret far more important than the philosopher's stone, 'transmutes the most worthless substances into the most precious; and, placing in the crucible of its potent chemistry the putrid refuse of the sea and the land, extracts fragrant essences,³ and healing medicines, and materials of priceless importance in the arts.

Labour, laughing at difficulties, spans majestic rivers, carries 'viaducts over marshy swamps, suspends aerial bridges above deep ravines, pierces the solid mountain with its dark, undeviating tunnel, blasting rocks and filling hollows; and, while linking together with its iron but loving grasp all nations of the Earth, 'verifies, in a literal sense, the ancient prophecy: "Every valley shall be exalted, and every mountain and hill shall be made low."⁴

Labour draws forth its delicate iron thread,⁵ and, stretching it from city to city, from province to province, through mountains and beneath the sea, realizes more than fancy ever fabled, while it constructs a chariot on which speech may outstrip the wind, 'compete with the lightning, and fly as rapidly as thought itself.

Labour seizes the thoughts of genius, the discoveries of science, the 'admonitions of piety, and with its magic types impressing the vacant page, renders it pregnant with life and power, 'perpetuating truth to distant ages, and diffusing it to all mankind.

Labour sits enthroned in palaces of crystal, whose high arched roofs proudly sparkle in the sunshine which delighteth to honour it, and whose ample courts are crowded with the trophies of its victories in every country and in every age.

Labour, a mighty magician, walks forth into a region uninhabited and waste;⁶ he looks earnestly at the scene, so quiet in its 'desolation; then, waving his wonder-working wand, those

dreary valleys smile with golden harvests ; those barren mountain-slopes are clothed with foliage ; the furnace blazes ; the anvil rings ; the busy wheels whirl round ; the town appears,—the mart of Commerce, the hall of Science, the temple of Religion, rear high their lofty fronts ; a forest of masts, gay with varied pennons, rises from the harbour ; the quays are crowded with commercial spoils,—the peaceful spoils which enrich both him who receives and him who yields. ‘Representatives of far-off regions make it their resort ; Science enlists the elements of earth and heaven in its service ; Art, awaking, clothes its strength with beauty ; Literature, new born, redoubles and perpetuates its praise ; Civilization smiles ; Liberty is glad ; Humanity rejoices ; Piety exults,—for the voice of industry and gladness is heard on every hand. And who, ‘contemplating such achievements, will deny that there is dignity in Labour !

NEWMAN HALL.

achievements, accomplishments.
admonitions, warnings.
benefactions, good deeds.
compete, strive.
contemplating, pondering
desolation, destitution.
detention, discovery.

dignity, nobleness.
dismayed, daunted
distributes, dispenses.
exertion, labour.
gorgeous, splendid.
perpetuating, continuing
ponderous, weighty.
pulsations, beats.

ramifications, branches.
representatives, emissaries.
sustenance, nourishment.
transmutes, changes.
untrammelled, free.
verifies, fulfils.
viaducts, roadways.

¹ Pulsations of an untrammelled commerce.—This figure compares the circulation of commodities in merchandise to the circulation of blood in the human body, the regularity of which is indicated by the beats of the pulse. *Untrammelled*, means free from the restrictions of import and export duties.

² Particles of rock, the sand of which glass is made. This paragraph refers to the work of the optician, in making spectacles, telescopes, and microscopes.

³ Fragrant essences.—The pungent smell arising from putrefying substances

is caused by the ammonia which they give off. It is well known that some of the finest “scents” are manufactured from putrefying matter.

⁴ “Every valley shall be exalted,” &c.—*Isaiah*, xl. 4.

⁵ Iron thread.—This paragraph of course refers to the electric telegraph.

⁶ A region uninhabited and waste.—This passage rapidly sketches the progress of a colony, such as one of those in Australia or New England, from the time of its first settlement on a barren shore, till it becomes a populous and flourishing state

THE PROBLEM OF CREATION.

If we look out upon the starry heavens by which we are surrounded, we find them diversified in every possible way. Our own mighty Stellar System takes upon itself the form of a flat disk, which may be compared to a mighty ring breaking into two distinct divisions, severed from each other, the interior with stars

less densely populous than upon the exterior. But take the telescope and go beyond this; and here you find, coming out from the depths of space, 'universes of every possible shape and fashion; some of them assuming a 'globular form, and, when we apply the highest possible 'penetrating power of the telescope, breaking into ten thousand brilliant stars, all crushed and condensed into one luminous, bright, and 'magnificent centre.

But look yet farther. Away yonder, in the distance, you behold a faint, hazy, 'nebulous ring of light, the interior almost entirely dark, but the exterior ring-shaped, and exhibiting to the eye, under the most powerful telescope, the fact that it may be resolved entirely into stars, producing a universe somewhat 'analogous to the one we inhabit. Go yet deeper into space, and there you will behold another universe—'voluminous scrolls of light, glittering with beauty, flashing with splendour, and sweeping a curve of most 'extraordinary form and of most tremendous outlines.

Thus we may pass from planet to planet, from sun to sun, from system to system. We may reach beyond the limits of this mighty stellar cluster with which we are allied. We may find other island universes sweeping through space. The great unfinished problem still remains—Whence came this universe? Have all these stars which glitter in the heavens been shining from all eternity? Has our globe been rolling around the sun for countless ages? Whence, whence this magnificent architecture, whose architraves¹ rise in splendour before us in every direction? Is it all the work of chance? I answer, No. It is not the work of chance.

Who shall 'reveal to us the true cosmogony² of the universe by which we are surrounded? Is it the work of an Omnipotent Architect? If so, who is this August Being? Go with me to-night, in imagination, and stand with old Paul, the great apostle, upon Mars Hill,³ and there look around you as he did. Here rises that magnificent building, the Parthenon, sacred to Minerva, the goddess of wisdom. There towers her colossal statue, rising in its majesty above the city of which she was the 'guardian—the first object to catch the rays of the rising, and the last to be kissed by the rays of the setting, sun. There are the temples of all the gods; and there are the shrines of every divinity.

And yet I tell you these gods and these divinities, though created under the inspiring fire of poetic fancy and Greek

imagination, never reared this 'stupendous structure by which we are surrounded. The Olympic Jove⁴ never built these heavens. The wisdom of Minerva never organized these magnificent systems. I say with St. Paul,⁵—"The God that made the world and all things therein, seeing that he is Lord of heaven and earth, dwelleth not in temples made with hands."

No; here is the temple of our Divinity. Around us and above us rise Sun and System, Cluster and Universe. And I doubt not that in every region of this vast Empire of God, hymns of praise and 'anthems of glory are rising and 'reverberating from Sun to Sun and from System to System—heard by Omnipotence alone across 'immensity and through 'eternity!

O. M. MITCHELL.

anal'ogous, sim'ilar.
an'thems, sacred songs.
div'er'sified, va'ried. [time
eter'nity, infin'itude of
extraor'dinary, remark'-
glob'ular, spher'ical. [able.

guard'ian, protect'or.
immen'sity, infin'itude of
space.
magnif'icent, splen'did.
neb'ulous, cloudy.
pen'etrating, pierc'ing.

reveal', unfold'. [ing.
rever'berating, resound'-
stupen'dous, tremen'dous.
surround'ed, encom'passed
u'niverses, world-systems.
volu'minous, ample.

¹ Ar'chitrave (*ar'ketrave*), entablature; or that part of the entablature which rests upon the column.

² Cosmog'ony, the theory or science of the origin of the universe.

³ Mars Hill, Par'thenon, Miner'va.—See p. 258, Note 4; and the lesson, *Paul at Athens*, p. 255.—*Minerva* is the Latin

name for the Pallas Athene of the Greeks. She was the goddess of wisdom.

⁴ Olympic Jove.—Zeus of the Greeks, (called by the Romans Jupiter and Jove,) the chief of their deities, who were supposed to have their abode on Olympus, a lofty mountain in Thessaly.

⁵ With St. Paul.—See *Acts*, xvii. 24.

EDUCATION AND THE STATE.

I BELIEVE, sir,¹ that it is the right and the duty of the State to provide means of education for the common people. This 'proposition seems to me to be implied in every definition that has ever yet been given of the 'functions of a Government. About the extent of those functions there has been much difference of opinion among ingenious men. There are some who hold that it is the business of a Government to meddle with every part of the system of human life: to regulate trade by bounties and 'prohibitions, to regulate 'expenditure by 'sumptuary laws, to regulate literature by a censorship, to regulate religion by an inquisition. Others go to the opposite extreme, and assign to Government a very narrow sphere of action. But the very narrowest sphere that ever was assigned to governments by any school of political 'philosophy is quite wide enough for my pur-

pose. On one point all the 'disputants are agreed. They unanimously acknowledge that it is the duty of every Government to take order for giving security to the persons and property of the members of the community.

This being admitted, can it be denied that the education of the common people is a most effectual means of securing our persons and our property? Let Adam Smith² answer that question for me. He has expressly told us that a 'distinction is to be made, 'particularly in a commercial and highly civilized society, between the education of the rich and the education of the poor. The education of the poor, he says, is a matter which deeply concerns the 'commonwealth. Just as the magistrate ought to interfere for the purpose of preventing the leprosy from spreading among the people, he ought to interfere for the purpose of stopping the progress of the moral distempers which are 'inseparable from ignorance. Nor can this duty be neglected without danger to the public peace. If you leave the multitude uninstructed, there is serious risk that their animosities may produce the most dreadful disorders.

The most dreadful disorders! Those are Adam Smith's own words; and prophetic words they were. Scarcely had he given this warning to our rulers when his 'prediction was fulfilled in a manner never to be forgotten. I speak of the riots of 1780. I do not know that I could find in all history a stronger proof of the proposition, that the ignorance of the common people makes the property, the limbs, the lives of all classes insecure. Without the shadow of a 'grievance, at the summons of a madman, a hundred thousand people rise in 'insurrection. During a whole week there is 'anarchy in the greatest and wealthiest of European cities. The Parliament is besieged. Your 'predecessor³ sits trembling in his chair, and expects every moment to see the door beaten in by the ruffians whose roar he hears all round the house. The peers are pulled out of their coaches. The bishops in their lawn are forced to fly over the tiles. The chapels of foreign ambassadors, buildings made sacred by the law of nations, are destroyed. The house of the Chief Justice is 'demolished. The little children of the Prime Minister are taken out of their beds and laid in their night clothes on the table of the Horse Guards,⁴—the only safe asylum from the fury of the rabble. The prisons are opened. Highwaymen, housebreakers, murderers, come forth to swell the mob by which they have been set free. Thirty-six fires are blazing at once in London. The Government is paralyzed; the very foundations of the Empire are shaken.

Then came the 'retribution. Count up all the wretches who were shot, who were hanged, who were crushed, who drank themselves to death at the rivers of gin which ran down Holborn Hill ;⁵ and you will find that battles have been lost and won with a smaller sacrifice of life. And what was the cause of this 'calamity—a calamity which, in the history of London, ranks with the Great Plague and the Great Fire?⁶ The cause was the ignorance of a population which had been suffered, in the neighbourhood of palaces, theatres, temples, to grow up as rude and stupid as any tribe of 'tattooed cannibals in New Zealand—I might say, as any drove of beasts in Smithfield Market.⁷

The instance is striking ; but it is not solitary. To the same cause are to be ascribed the riots of Nottingham,⁸ the sack of Bristol,⁹ all the outrages of Lud, and Swing,¹⁰ and Rebecca;¹¹—beautiful and costly machinery broken to pieces in Yorkshire, barns and hay-stacks blazing in Kent, fences and buildings pulled down in Wales. Could such things have been done in a country in which the mind of the labourer had been opened by education ; in which he had been taught to find pleasure in the exercise of his intellect, taught to revere his Maker, taught to respect legitimate authority, and taught at the same time to seek the redress of real wrongs by peaceful and 'constitutional means ?

This, then, is my 'argument :—It is the duty of Government to protect our persons and property from danger ; the gross ignorance of the common people is a principal cause of danger to our persons and property : therefore it is the duty of the Government to take care that the common people shall not be grossly ignorant.

And what is the 'alternative ? It is universally allowed that, by some means, Government must protect our persons and property. If you take away education, what means do you leave ? You leave means such as only necessity can justify—means which 'inflict a fearful amount of pain, not only on the guilty, but on the innocent who are connected with the guilty. You leave guns and 'bayonets, stocks and whipping-posts, tread-mills, solitary cells, penal colonies, gibbets. See, then, how the case stands. Here is an end which, as we all agree, governments are bound to attain. There are only two ways of attaining it. One of those ways is by making men better, and wiser, and happier. The other way is by making them 'infamous and miserable. Can it be doubted which we ought to prefer ?

LORD MACAULAY. (b)

alter'native, other course.
an'archy, law'lessness. [ing
ar'gument, line of reason-
bay'onets, short swords.
calam'ity, disas'ter.
com'monwealth, state.
constitu'tional, stat'utory.
demol'ished, destroyed'.
dis'putants, controver'sial-
ists.

distinc'tion, dif'ference.
expen'diture, out'lay.
func'tions, duties.
griev'ance, ground of com-
plaint.
in'famous, disgrace'ful.
inflict', impose'.
insep'arable, indis'soluble.
insurrec'tion, rebell'ion.
legit'imate, law'ful.

partic'ularly, espec'ially.
philos'ophy, science.
predeces'sor, precurs'or.
predic'tion, proph'ecy.
prohibi'tions, restric'tions
proposi'tion, state'ment.
tribu'tion, punish'ment.
sump'tuary, restrict'ing
expen'diture.
tattooed, skin-dyed.

¹ Sir.—The Speaker of the House of Commons, to whom the speeches are addressed.

² Adam Smith.—Author of a standard work on political economy entitled *Inquiry into the Nature and Causes of the Wealth of Nations*. Smith was Professor of Moral Philosophy in the University of Glasgow. He died in 1790.

³ Your predecessor.—This is addressed to the Speaker, and thus means the Speaker of the House of Commons in 1780.

⁴ The Horse Guards, a building in London, at the east end of St. James's Park, in which some of the Horse Grenadier Guards are garrisoned, and where the Commander-in-Chief has his office. Two horse-soldiers, in full uniform, daily mount guard under two small arches at its gates.

⁵ Holborn Hill, one of the great thoroughfares of London.

⁶ The Great Plague and the Great Fire.—See ROYAL HISTORY OF ENGLAND, p. 302.

⁷ Smithfield Market.—In the eastern part of London. It was the great cattle market of London till the new Metropolitan Market in Copenhagen Fields was opened in 1855. The open market at Smithfield was then disused; but a new dead-meat market has lately been built there.

⁸ The riots of Nottingham.—These riots, like those in Yorkshire afterwards referred to, were excited by the introduction of machinery for spinning and weaving. The hand-loom weavers fancied that they would be thrown out of employment, or that their wages would be reduced. An idiot named Ned Lud having in a passion broken some frames at Nottingham, the mob commenced a wholesale destruction

of all the machinery in the place. The rioters were called Luddites, and their outrages continued to be perpetrated in the north of England from 1811 till 1816. Several Luddites were tried and executed.

⁹ The sack of Bristol.—The Recorder was obnoxious to the common people, because he opposed the Reform Bill. On his entrance into Bristol in October 1831, the mob destroyed the mansion-house and other public buildings, and burned nearly one hundred private residences. Above five hundred lives were lost.

¹⁰ Swing.—The name assumed by the writers of threatening letters sent to farmers between 1830 and 1833, warning them that if they did not abandon the use of machinery, especially of threshing-mills, their farm-houses would be wrecked. In consequence, many stack-yards, in Kent and other southern counties, were burned; houses, machines, and live stock were sacrificed. Many farmers were forced to submit, and the outrages and terrorism did not cease till some of the ringleaders were apprehended and punished.

¹¹ Rebecca.—The Rebecca riots of Wales in 1843 arose out of the bad management of turnpikes and tolls. The name originated in a strange distortion of a Scripture text: "And they blessed *Rebekah*, and said unto her, . . . Let thy seed possess the gate of those which hate them." (*Gen.* xxiv. 60.) The rioters, disguised in bonnets and gowns, attacked the toll-bars at midnight, flung out the keepers' furniture, pulled down the houses, and levelled the gates with the ground. Further inflamed by political agitators, they attacked work-houses, burned stacks, and even spilt blood.

QUESTIONS.—On what point has there been much difference of opinion among ingenious men?—About the extent of the functions of Government.

What differences are pointed out?—Some have held that Government should meddle with every department of human life; others have assigned to Government a very narrow sphere of action.

On what are all parties agreed?—That it is the duty of Government to take order for the security of life and property.

What is a most effectual means of accomplishing this?—Education.

What does Adam Smith say leaving the multitude uninstructed is likely to produce?—The most dreadful disorders.

What striking example of such disorders is given?—The riots in London in 1780.

Mention some particulars of the excesses perpetrated by the mob.—Peers were pulled out of their coaches; bishops had to fly over the tiles; the chapels of foreign ambassadors were destroyed; the house of the Chief Justice was demolished; the prisons were opened, and the prisoners swelled the mob; thirty-six fires were blazing in London at once.

What was the true cause of that calamity?—The ignorance of the people, who, in the neighbourhood of palaces, had been allowed to grow up as rude as savages and brutes.

What other instances are mentioned?—The Machinery riots of the Luddites in Nottingham and Yorkshire, in 1811-16; the Reform riots in Bristol in 1831; the agricultural outrages in Kent in 1830-33; the Rebecca riots in Wales in 1843.

What would have made these things impossible?—Opening the minds of the labourers by education; &c., &c.

Sum up the argument.—Government should protect life and property; the ignorance of the people endangers life and property: therefore Government should take means to remove the ignorance of the people.

What is the alternative?—Education, or physical force—guns and bayonets, &c.

What are the consequences of each plan?—Education makes men better, wiser, and happier; physical force makes them infamous and miserable.

NOTE.—The answers to the questions on the above lesson are given in full, as the argument may be somewhat difficult for young scholars to follow. They will also serve to show how the main points in a lesson may be gathered up by means of a few leading questions.

ENGLISH SELF-ESTEEM.

AND now I will grapple with the noble Lord [Palmerston]¹ on the ground which he selected for himself, in the most 'triumphant portion of his speech, by his reference to those 'emphatic words, *Civis Romanus sum*.² He 'vaunted, amidst the cheers of his supporters, that under his 'administration an Englishman should be throughout the world what the citizen of Rome had been. What then, sir, was a Roman citizen? He was the member of a 'privileged 'caste; he belonged to a conquering race,—to a nation that held all others bound down by the strong arm of power. For him there was to be an 'exceptional system of law; for him principles were to be asserted, and by him rights were to be enjoyed, that were denied to the rest of the world.

Is such, then, the view of the noble lord, as to the relation that is to 'subsist between England and other countries? Does he make the claim for us, that we are to be uplifted on a platform high above the standing-ground of all other nations? It is, indeed, too clear, not only from the 'expressions, but from the whole spirit of the speech of the noble Viscount, that too much of this notion is lurking in his mind; that he adopts in part that

vain 'conception, that we, forsooth, have a mission to be the censors of vice and folly, of abuse and 'imperfection among the other countries of the world ; that we are to be the universal schoolmasters ; and that all those who hesitate to 'recognize our office can be governed only by prejudice or personal 'animosity, and should have the blind war of diplomacy forthwith declared against them.....

Sir, the English people, whom we are here to represent, are indeed a great and noble people ; but it adds nothing to their greatness or their nobleness, that, when we assemble in this place, we should trumpet forth our virtues in elaborate 'panegyrics, and 'designate those who may not be wholly of our mind as a knot of foreign 'conspirators. Now, the policy of the noble lord tends to encourage and confirm in us that which is our 'besetting fault and weakness, both as a nation and as individuals. Let an Englishman travel where he will as a private person, he is found in general to be upright, high-minded, brave, liberal, and true : but with all this, 'foreigners are too often sensible of something that galls them in his presence ; and I apprehend it is because he has too great a 'tendency to self-esteem—too little 'disposition to regard the feelings, the habits, and the ideas of others.

I doubt not that use will be made of our present debate to work upon this peculiar weakness of the English mind. The people will be told that those who oppose the motion are governed by 'personal motives, have no regard for public principle, no enlarged ideas of national policy. You will take your case before a 'favourable jury, and you think to gain your verdict ; but, sir, let the House of Commons be warned—let it warn itself—against all 'illusions. There is in this case also a course of appeal. There is an appeal, such as one honourable and learned member has already made, from the one House of Parliament to the other. There is a further appeal from this House of Parliament to the people of England. But, lastly, there is also an appeal from the people of England to the general sentiment of the 'civilized world ; and I, for my part, am of opinion that England will stand shorn of a chief part of her glory and her pride, if she shall be found to have 'separated herself, through the policy she pursues abroad, from the moral support which the general and fixed 'convictions of mankind afford—if the day shall come in which she may continue to excite the wonder and the fear of other nations, but in which she shall have no part in their affections and their regard.

WILLIAM EWART GLADSTONE.

administra'tion, govern-
ment.

animos'ity, antip'athy.

beset'ting, habit'ual.

caste, race ; order

civilized, cult'ivated.

concep'tion, no'tion.

conspir'ators, plot'ters.

convic'tions, beliefs'.

des'ignate, char'acterize.

disposi'tion, inclina'tion.

emphat'ic, forcible.

except'ional, spe'cial.

expres'sions, words.

fa'vourable, partial.

for'eigners, stran'gers.

illu'sions, decep'tions.

imperfec'tion, fault.

panegy'r'ics, eu'logies.

per'sonal, self'ish.

priv'ileged, fa'voured.

recognize', acknowl'edge.

sep'arated, with'drawn'.

subsist', contin'ue.

ten'dency, prone'ness.

trium'phant, exult'ing.

vaunt'ed, boast'ed.

¹ Lord Palmerston.—Henry Temple, Viscount Palmerston one of the most successful foreign ministers of England. He was a member of nearly every Liberal Government from 1809 till his death in 1865. His firm and decided policy made the name of England be respected all over the world. Mr. Gladstone contends in this speech that the tendency of Lord Palmerston's policy was to make England be regarded with fear rather than with affection. The occasion of the speech was a rupture with Greece in 1850. Some British subjects in Athens having suffered loss by the violence of a mob, compensation was demanded. When this was refused, Admiral Parker, with the Mediterranean

fleet, was ordered to blockade the Piræus, the port of Athens—a step which led to the debate in Parliament.

² *Ci'vis Roma'nus sum*—I am a Roman citizen.

³ William Ewart Gladstone, Prime Minister of England from 1868 till 1874, and a second time in 1880. He entered public life as a follower of Sir Robert Peel, under whom he took office in 1834. He was Chancellor of the Exchequer from 1852 till 1855, and again from 1859 till 1866. The fiscal reforms accomplished during these years raised him to the first rank as a finance minister. Mr. Gladstone is also an author ; chief work, *Homer and the Homeric Age*.

PLEASURES OF KNOWLEDGE.

"Not to know at large of things remote
From use, obscure and subtle, but to know
That which before us lies in daily life,
Is the prime wisdom."—MILTON.

It is NOBLE to seek Truth, and it is BEAUTIFUL to find it. It is the 'ancient feeling of the human heart, that knowledge is better than riches ; and it is deeply and *sacredly true*. To mark¹ the course of human passions as they have flowed on in the ages that are past ; to see why nations have risen, and why they have fallen ; to speak of heat, and light, and the winds ; to know what man has 'discovered in the heavens above and in the earth beneath ; to hear the chemist unfold the 'marvellous properties that the Creator has locked up in a speck of earth ; to be told that there are worlds so distant from our own, that the quickness of light, travelling since the world's creation, has never yet reached us ;—it is worth while in the days of our youth to strive hard for this great discipline.

To wander in the creations of poetry, and grow warm again with that 'eloquence which swayed the 'democracies of the Old

World;² to go up with great reasoners to the First Cause of all, and to perceive, in the midst of all this dissolution and decay and cruel separation, that there *is* one thing unchangeable, indestructible, and everlasting;—it is surely worth while to pass sleepless nights for this; to give up for it laborious days;³ to spurn for it present pleasures; to endure for it afflicting poverty; to wade for it through darkness, and sorrow, and contempt, as the great spirits of the world have done in all ages and in all times.

I appeal to the experience of every man who is in the habit of exercising his mind vigorously and well, whether there is not a satisfaction in it, which tells him he has been acting up to one of the great objects of his existence? The end of nature has been answered: his faculties have done that which they were created to do—not languidly occupied upon trifles, not enervated by sensual gratification, but exercised in that toil which is so congenial to their nature, and so worthy of their strength.

A life of knowledge is not often a life of injury and crime. Whom does such a man oppress? with whose happiness does he interfere? whom does his ambition destroy? and whom does his fraud deceive? In the pursuit of science he injures no man, and in the acquisition he does good to all.

A man who dedicates his life to knowledge, becomes habituated to pleasure which carries with it no reproach: and there is one security that he will never love that pleasure which is paid for by anguish of heart—his pleasures are all cheap, all dignified, and all innocent; and, as far as any human being can expect permanence in this changing scene, he has secured a happiness which no malignity of fortune can ever take away, but which must cleave to him while he lives, ameliorating every good, and diminishing every evil of his existence.....

I solemnly declare, that, but for the love of knowledge, I should consider the life of the meanest hedger and ditcher as preferable to that of the greatest and richest man in existence; for the fire of our minds is like the fire which the Persians burn⁴ on the mountains—it flames night and day, and is immortal, and not to be quenched! Upon something it must act and feed—upon the pure spirit of knowledge, or upon the foul dregs of polluting passions.

Therefore, when I say, in conducting your understanding, love knowledge with a great love, with a vehement love, with a love coëval with life, what do I say but love innocence; love virtue; love purity of conduct; love that which, if you are rich and

great, will sanctify the providence which has made you so, and make men call it justice; love that which, if you are poor, will render your poverty respectable, and make the proudest feel it unjust to laugh at the meanness of your fortunes; love that which will comfort you, adorn you, and never quit you—which will open to you the kingdom of thought, and all the boundless regions of conception, as an 'asylum against the cruelty, the injustice, and the pain that may be your lot in the outer world—that which will make your motives habitually great and honourable, and light up in an instant a thousand noble disdains at the very thought of meanness and of fraud?

Therefore, if any young man have embarked his life in the pursuit of Knowledge, let him go on without doubting or fearing the event: let him not be intimidated by the cheerless beginnings of Knowledge, by the darkness from which she springs, by the difficulties which hover around her, by the wretched habitations in which she dwells, by the want and sorrow which sometimes journey in her train; but let him ever follow her as the Angel that guards him, and as the Genius of his life. She will bring him out at last into the light of day, and exhibit him to the world comprehensive in acquirements, fertile in resources, rich in imagination, strong in reasoning, prudent and powerful above his fellows in all the relations and in all the offices of life.

SYDNEY SMITH.⁽²⁾

acquisition, attainment.
ameliorating, making
better.
ancient, primitive.
asylum, refuge.
coeval, of the same age.
comprehensive, capacious.
contempt, neglect.

democracies, republics.
dignified, elevated.
discovered, found out.
dissolution, destruction.
eloquence, oratory.
enervated, weakened.
experience, knowledge
gained by practice.
fertile, fruitful; ready.

habituated, accustomed.
indestructible, everlasting.
intimidated, frightened.
laughingly, feebly.
marvellous, wonderful.
permanence, durability.
quenched, extinguished.
vehement, powerful.

¹ To mark, &c.—The different sciences and arts referred to in the successive clauses of the sentence are—history, physics, meteorology and geology, chemistry, astronomy, poetry, oratory, and theology.

² The democracies of the Old World.—Such were Athens and Sparta in ancient Greece, and such were Rome and Carthage in their palmier days. The "eloquence" referred to is that of Demosthenes, the Athenian, and of Cicero, the Roman, orator.

³ Laborious days.—This effect of the love of knowledge has evidently been suggested by what Milton says of the love of fame:—

"Fame is the spur that the clear spirit doth raise

(That last infirmity of noble mind)

To scorn delights, and live laborious days."

Lycidas, 70-72.

⁴ The fire which the Persians burn.—The dominant religion in Persia was fire-worship, or Parseeism, down to the seventh century, when the country was conquered by the Arabs, and Mohammedanism took its place. Many of the Parsees then fled to India, and their descendants have still their head-quarters at Bombay. Many, at the same time, submitted to the conquerors, and their descendants are called Guebres (*Guebres*).

THE BRITISH CONSTITUTIONAL SYSTEM OF CANADA.

I TAKE the British constitutional system as the great 'original system upon which are founded the institutions of all free States. I take it as one of a family born of Christian civilization.' I take it as 'combining in itself 'permanence and liberty; liberty in its best form—not in theory alone, but in practice; liberty which is enjoyed in fact by all the people of Canada, of every origin and of every creed.

Can any one pretend to say that a chapter of accidents which we can trace for eight hundred years, and which some 'antiquaries may even trace for a much longer period, will account for the permanence of these institutions? If you say that they have not in themselves the 'elements of permanence which preserve the foundations of a free State from one generation to another—how do you account for their continued and 'prosperous existence? How do you account for it, that of all the ancient constitutions of Europe this alone remains; and remains not only with all its ancient outlines, but with great modern improvements,—improvements, however, made in harmony with the design of its first 'architects? Here is a form of government that has lasted, with modifications to suit the spirit of 'successive ages, for a period of eight hundred years. How is it that I account for the permanence of its institutions? By asserting that, in their outline plan, they combine all the good of material 'importance that has ever been discovered.

The wisdom of the middle ages, and the political writers of the present time, have all laid down one maxim of government,—That no unmixed form of government can satisfy the wants of a free and intelligent people; that an unmixed 'democracy, for instance, must result in 'anarchy or military despotism: but that the form of government which combines in itself an inviolable monarchy, popular representation, and the 'incitements of an 'aristocracy—a working aristocracy—an aristocracy that takes its share of toil and danger in the day of battle, of care and anxiety in the time of peace—an aristocracy of talent open to any of the people who make themselves worthy to enter it—that three-fold combination in the system of government is the highest 'conception of political science.

Let us see if the British form, apart from any details of its practice, combines in itself these three qualities. The leading principle of the British system is, that the head of the State is 'inviolable. It is necessary to the stability of any State that

there should be an inviolable authority or 'tribunal ; and under the British system this is 'recognized in the maxim that "the King can do no wrong." Having placed the principle of inviolability in the Crown, and the principle of 'privilege in the Peerage, the founders of the State took care at the same time that the peerage should not stagnate into a small and 'exclusive caste. They left the House of Lords open to any of the People who might 'distinguish themselves in war or in peace, although they might be the children of paupers (and some have been 'ennobled who were unable to tell who 'their parents were), to enter in and take their place on an equality with the proudest there, who trace back their descent for centuries.

It was for the people of Canada, with the precedent of England and the example of the American republic before them, to decide which should be the 'prevailing character of their government,—British constitutional, or republican constitutional. For my part, I prefer the British constitutional government, because it is the best; and I reject the republican constitutional government, because it is not the best. We are now witnessing a great epoch in the world's history ; and the events daily 'transpiring around us should teach us not to rely too much upon our present position of secure independence, but rather to 'apprehend and be prepared for attempts against our liberties, and against that system of government which, I am convinced, is heartily cherished by the inhabitants of this province.

HON. T. D. M'GEE.

an'archy, confu'sion.
an'tiquaries, students of
antiquity.
apprehend', antiq'ipate.
ar'chitects, design'ers.
aristoc'racy, government
by nobles.
combin'ing, unit'ing.
concep'tion, ide'al.

democ'racy, government by
the people
distin'guish, make fa'mous.
el'ements, prin'ciples
enno'bled, raised to the
peerage.
exclu'sive, select'.
import'ance, val'ue.
incite'ments, attrac'tions.

invi'olable, sa'cred.
orig'inal, pri'mary.
per'manence, durabil'ity
prevail'ing, predom'inant.
priv'ilege, immu'nity.
pros'perous, flour'ishing.
recognized, acknowl'edged.
transpir'ing, hap'pening.
tribu'nal, author'ity.

THE SCHOOLMASTER AND THE CONQUEROR.

THERE is nothing with which the 'adversaries of improvement are more wont to make themselves merry than with what is termed "*the march of intellect*;" and I confess that I think, as far as the phrase goes, they are in the right. It is a very absurd, because a very 'incorrect, expression. It is little 'calculated to describe the operation in question. It does not suggest an image at all resembling the proceedings of the true friends of mankind. It

much more resembles the progress of the enemy of all improvement. The conqueror moves in a march. He stalks onward with "the pride, pomp, and circumstance of glorious war"—banners flying, shouts rending the air, guns thundering, and martial music pealing, to drown the shrieks of the wounded, and the lamentations for the slain.

Not thus the schoolmaster, in his peaceful vocation. He meditates and prepares in secret the plans which are to bless mankind; he slowly gathers around him those who are to further their execution; he quietly, though firmly, advances in his humble path, labouring steadily, but calmly, till he has opened to the light all the recesses of ignorance, and torn up by the roots the weeds of vice. His is a progress not to be compared with anything like a march; but it leads to a far more brilliant triumph, and to laurels more imperishable than the destroyer of his species, the scourge of the world, ever won.

Such men—men deserving the glorious title of teachers of mankind—I have found, labouring conscientiously, though perhaps obscurely, in their blessed vocation, wherever I have gone. I have found them, and shared their fellowship, among the daring, the ambitious, the ardent, the indomitably active French; I have found them among the persevering, resolute, industrious Swiss; I have found them among the laborious, the warm-hearted, the enthusiastic Germans; I have found them among the high-minded Italians; and in our own country, thank Heaven, they everywhere abound, and their number is every day increasing.

Their calling is high and holy; their fame is the property of nations; their renown will fill the Earth in after ages, in proportion as it sounds not far off in their own times. Each one of those great teachers of the world, possessing his soul in patience, performs his appointed work; awaits in faith the fulfilment of the promises; and, resting from his labours, bequeaths his memory to the generation whom his works have blessed, and sleeps under the humble but not inglorious epitaph, commemorating "one in whom mankind lost a friend, and no man got rid of an enemy."

LORD BROUGHAM (1778-1868).

adversaries, enemies.
bequeaths, hands down.
calculated, fitted.
commemorating, celebrating.
conscientiously, faithfully.

enthusiastic, ardent.
epitaph, inscription on a tomb-stone.
fulfilment, performance.
imperishable, undying.
incorrect, inaccurate.
indomitably, invincibly.

industrious, laborious.
lamentations, wallings.
obscurely, humbly.
persevering, persistent.
property, possession.
shrieks, cries.
vocation, calling.

BRITISH COLONIAL AND NAVAL POWER.

THE sagacity of England is in nothing more clearly shown than in the foresight with which she has provided against the emergency of war. Let it come when it may, it will not find her unprepared. So thickly are her colonies and naval stations scattered over the face of the Earth, that her war-ships can speedily reach every commercial centre on the globe.

There is that great centre of commerce, the Mediterranean Sea. It was a great centre long ago, when the Phœnician¹ traversed it, and, passing through the Pillars of Hercules,² sped on his way to the distant and then savage Britain. It was a great centre when Rome and Carthage³ wrestled in a death-grapple for its possession. But at the present day England is as much at home on the Mediterranean as if it were one of her own Canadian lakes.

Nor is it simply the number of the British colonies, or the evenness with which they are distributed, that challenges our admiration. The positions which these colonies occupy, and their natural military strength, are quite as important facts. There is not a sea or a gulf in the world, which has any real commercial importance, but England has a stronghold on its shores. And wherever the continents tending southward come to points, around which the commerce of nations must sweep, there is a British settlement; and the cross of St. George salutes you as you are wafted by. There is hardly a little desolate, rocky island or peninsula, formed apparently by Nature for a fortress, and nothing else, but the British flag floats securely over it.

These are literal facts. Take, for example, the great Overland Route⁴ from Europe to Asia. Despite its name, its real highway is on the waters of the Mediterranean and Red Seas. It has three gates—three only. England holds the key to every one of these gates. Count them—Gibraltar, Malta, Aden. But she commands the entrance to the Red Sea, not by one, but by several strongholds. Midway in the narrow strait is the black, bare rock of Perim, sterile, precipitous, a perfect counterpart of Gibraltar; and on either side, between it and the mainland, are the ship-channels which connect the Red Sea with the great Indian Ocean. This England holds.

A little farther out is the peninsula of Aden, another Gibraltar, as rocky, as sterile, and as precipitous, connected with the mainland by a narrow strait, and having a harbour safe in all

winds, and a central coal depôt. This England bought in 1839. And to complete her 'security, she has purchased from some petty sultan the neighbouring islands of Socotra and Kouri, giving, as it were, a retaining fee, so that, though she does not need them herself, no rival power may ever possess them.

As we sail a little farther on, we come to the Chinese Sea. What a beaten track of commerce is this! What wealth of comfort and luxury is wafted over it by every breeze! The teas of China! The silks of Farther India! The spices of the East! The ships of every clime and nation swarm on its waters! The stately barques of England, France, and Holland! The swift ships of America! And mingled with them, in 'picturesque confusion, the clumsy junk of the Chinaman, and the slender, darting canoe of the Malaysian islanders.

At the lower end of the China Sea, where it narrows into Malacca Strait, England holds the little island of Singapore—a spot of no use to her whatever, except as a commercial depôt, but of 'inestimable value for that; a spot which, under her 'fostering care, is growing up to take its place among the great 'emporiums of the world. Half way up the sea she holds the island of Labuan,⁵ whose chief worth is this, that beneath its surface and that of the neighbouring mainland there lie 'inexhaustible treasures of coal, which are likely to yield wealth and power to the hand that controls them. At the upper end of the sea she holds Hong-Kong,⁶ a hot, unhealthy island, but an invaluable base from which to threaten and control the neighbouring waters.

Even in the broad, and as yet 'comparatively untracked Pacific, she is making silent advances towards dominion. The vast continent of Australia, which she has secured, forms its south-western boundary. And pushed out six hundred miles eastward from this lies New Zealand, like a strong outpost, its shores so scooped and torn by the waves that it must be a very paradise of 'commodious bays and safe havens for the mariner. The soil, too, is of extraordinary fertility; and the climate, though humid, deals kindly with the Englishman's 'constitution. Nor is this all; for, advanced from it, north and south, like picket stations, are Norfolk Isle, and the Auckland group, both of which have good harbours. And it requires no prophet's eye to see that, when England needs posts farther eastward, she will find them among the green coral islets that stud the Pacific.

Turn now your steps homeward, and pause a moment at the Bermudas,⁷ those 'beautiful isles, with their fresh verdure—green

gems in the ocean, with air soft and balmy as Eden's was! They have their home uses too. They furnish arrow-root for the sick, and ample supplies of vegetables earlier than sterner climates will yield them. Is this all that can be said? Reflect a little more deeply. These islands possess a great military and naval depôt; and a splendid harbour, land-locked, strongly fortified, and difficult of access to strangers;—and all within a few days' sail of the chief ports of the Atlantic shores of the New World. England therefore retains them as a station on the road to her West Indian possessions; and should America go to war with her, she would use it as a base for offensive operations, where she might gather and whence she might hurl upon any unprotected port all her gigantic naval and military power.

Atlantic Monthly.—(An American Magazine.)

apparently, evidently.
beautiful, lovely.
challenges, claims.
commercial, mercantile.
commo'dious, roomy.
comparatively, relatively.
constitution, physical.
despite, in spite of [frame].
distributed, disposed.

emer'gency, unforeseen oc-
ca'sion.
emp'o'riums, depôts'.
fos'tering, cherishing.
fur'nish, supply'.
ines'timable, price'less.
inexhaustible, unim'ited.
offen'sive, making the at-
tack.

opera'tions, works.
picturesque', strik'ing.
precipitous, steep.
sagaçity, wis'dom.
secu'rity, safe'ty.
set'tlement, col'ony.
splen'did, magnific'ent.
trav'ersed, crossed.
unprotect'ed, unguard'ed.

¹ **The Phœn'ician.**—The Phœnicians (natives of Phœnicia, on the sea-coast of Syria) were the most eminent navigators and traders of antiquity. They planted numerous colonies on the shores of the Mediterranean, the chief of which was Carthage, fifteen centuries before the Christian era.

² **Pillars of Her'cules.**—The Strait of Gibraltar. (See p. 129.)

³ **Rome and Car'thage.**—They struggled for the mastery of the Mediterranean in the three great Punic Wars (264, 218, 149

B.C.) In the last, Carthage was destroyed (See p. 272, Note 1.)

⁴ **Overland Route.**—See lesson on this subject, p. 128.

⁵ **Labu'an**, a small island in the East Indian Archipelago, on the north-west coast of Borneo.

⁶ **Hong-Kong**, at the mouth of Canton river, in China. It was taken by the English in 1839, and formally ceded to Britain in 1841.

⁷ **Bermu'das.**—See lesson on *Great Ocean Routes*, p. 210.

QUESTIONS.—How do Britain's colonies strengthen her naval power? On what commanding positions has she strongholds? What are the three gates of the Overland Route? Who holds the keys to them? How does Britain command the China Sea? How the Pacific? What do the Bermudas enable her to control?

KING JOHN.

ABRIDGED FROM SHAKESPEARE'S PLAY.

PERSONS REPRESENTED.

KING JOHN.	[<i>King.</i>]	EARL OF SALISBURY.
HUBERT DE BURGH, <i>Chamberlain to the</i>		SIR ROBERT FAULCONBRIDGE.
CARDINAL PANDULPH, <i>the Pope's legate.</i>		BIGOT, <i>Earl of Norfolk.</i>
ARTHUR, <i>son of Geoffrey, late Duke of</i>		EARL OF PEMBROKE.
<i>Bretagne, the elder brother of King John.</i>		PRINCE HENRY, <i>son of King John, afterwards Henry III.</i>
CONSTANCE, <i>mother to Arthur.</i>		

PART I.

KING JOHN invades France, to chastise Philip for espousing the cause of Prince Arthur, the rightful heir to the English throne. In a battle before Angiers, Arthur is taken prisoner. Hubert, chamberlain to King John, is appointed Arthur's keeper, with instructions to find some means of depriving the young prince of life.

SCENE—*King John's tent before Angiers.*

K. John. Come hither, Hubert. O my gentle Hubert,
We owe thee much;.....

Give me thy hand. I had a thing to say,—
But I will fit it with some better time.
In good sooth, Hubert, I am almost 'ashamed
To say what good 'respect I have of thee.

Hub. I am much bounden¹ to your majesty.

K. John. Good friend, thou hast no cause to say so yet;
But thou shalt have: and creep time ne'er so slow,
Yet it shall come for me to do thee good.
I had a thing to say—but let it go:

The sun is in the heaven, and the proud day,
Attended with the pleasures of the world,
Is all too wanton, and too full of gawds,²
To give me 'audience:—If the midnight bell
Did, with his iron tongue and brazen mouth,
Sound one unto the drowsy race of night;
If this same were a churchyard where we stand,
And thou possess'd with a thousand wrongs;
Or if that surly spirit, 'melancholy,
Had baked thy blood, and made it heavy-thick,
(Which, else, runs tickling up and down the veins,
Making that idiot, laughter, keep men's eyes
And strain their cheeks to idle 'merriment,
A passion hateful to my purposes;)
Or if that thou couldst see me without eyes,
Hear me without thine ears, and make reply
Without a tongue, using conceit³ alone,
Without eyes, ears, and harmful sound of words;—

Then, in despite of brooded watchful day,
I would into thy bosom pour my thoughts:
But, ah, I will not:—yet I love thee well;
And, by my troth,⁴ I think thou lovest me well.

Hub. So well, that what you bid me 'undertake,
Though that my death were adjunct to my act,⁵
Indeed, I'd do't.

K. John. Do not I know thou wouldst?
Good Hubert, Hubert, Hubert, throw thine eye
On you young boy: I'll tell thee what, my friend,
He is a very 'serpent in my way;
And, wheresoe'er this foot of mine doth tread,
He lies before me: dost thou understand me?
Thou art his keeper.

Hub. And I will keep him so,
That he shall not 'offend your majesty.

K. John.

Death.

Hub. My lord?

K. John. A grave.

Hub.

He shall not live.

K. John.

Enough.

I could be merry now: Hubert, I love thee.
Well, I'll not say what I 'intend for thee:
Remember.....

Constance, mother to Prince Arthur, is overwhelmed with grief at the capture of her son.

SCENE—*The French King's tent.*

Pand. Lady, you utter madness, and not sorrow.

Const. Thou art not holy, to belie me so;
I am not mad: this hair I tear is mine;
My name is Constance; I was Geoffrey's⁶ wife;
Young Arthur is my son, and he is lost:
I am not mad;—I would, in sooth, I were
For then, 'tis like I should forget myself:
O, if I could, what grief should I forget!—
Preach some 'philosophy to make me mad.....
If I were mad, I should forget my son:
I am not mad; too well, too well I feel
The different 'plague of each 'calamity.

K. Phi. Bind up those tresses.—O what love I note
In the fair multitude of these her hairs!
When but by chance a silver drop hath fallen,
Even to that drop ten thousand wiry friends
Do glue themselves in sociable grief,
Like true, inseparable, faithful lovers,
Sticking together in calamity.—

Bind up your hairs.

Const. Yes, that I will; and wherefore will I do it?
 I tore them from their bonds; and cried aloud,
 "O that these hands could so 'redeem my son,
 As they have given these hairs their liberty!"
 But now I envy at their liberty,
 And will again commit them to their bonds,
 Because my poor child is a prisoner.—
 And, father cardinal, I have heard you say,
 That we shall see and know our friends in heaven:
 If that be true, I shall see my boy again;
 For since the birth of Cain, the first male child,
 To him that did but yesterday 'supsire,
 There was not such a gracious creature born.
 But now will canker⁷ sorrow eat my bud,
 And chase the native beauty from his cheek,
 And he will look as hollow as a ghost;
 As dim and 'meagre as an ague's fit;
 And so he'll die; and, rising so again,
 When I shall meet him in the court of heaven
 I shall not know him: therefore never, never
 Must I behold my pretty Arthur more.

Pand. You hold too 'heinous a respect of grief.

Const. He talks to me that never had a son.⁸

King Phi. You are as fond of grief as of your child.

Const. Grief fills the room up of my absent child,
 Lies in his bed, walks up and down with me;
 Puts on his pretty looks, repeats his words,
 Remembers⁹ me of all his gracious parts,
 Stuffs out his 'vacant garments with his form;
 Then have I reason to be fond of grief.—
 Fare you well: had you such a loss as I,
 I could give better comfort than you do.—
 I will not keep this form upon my head, [Tearing it off.
 When there is such 'disorder in my wit.—
 O Lord! my boy, my Arthur, my fair son!
 My life, my joy, my food, my all the world!
 My widow-comfort, and my sorrows' cure!

K. Phi. I fear some 'outrage, and I'll follow her. [Exit.

Arthur, having been sent to England, is imprisoned in Northampton Castle. (Historically this is not true. Arthur was first sent to Falaise, then to Rouen; but Shakespeare's arrangement of the play requires the scene to be laid in England.)

SCENE—A Room in Northampton Castle.

Enter HUBERT, and two Attendants.

Hub. Heat me these irons hot;¹⁰ and, look thou stand
 Within the arras:¹¹ when I strike my foot

Upon the bosom of the ground, rush forth,
And bind the boy, which you shall find with me,
Fast to the chair: be heedful: hence, and watch.

1st *Attend.* I hope your warrant will bear out the deed.

Hub. Uncleanly scruples! Fear not you: look to't.

[*Exeunt Attendants.*]

Young lad, come forth; I have to say with you.

Enter ARTHUR.

Arth. Good morrow, Hubert.

Hub. Good morrow, little prince.

Arth. As little prince¹² (having so great a title
To be more prince) as may be.—You are sad.

Hub. Indeed, I have been merrier.

• *Arth.* Mercy on me!
Methinks nobody should be sad but I:

Yet, I remember, when I was in France,
Young gentlemen would be as sad as night,
Only for wantonness. By my christendom,
So I were out of prison, and kept sheep,
I should be as merry as the day is long;
And so I would be here, but that I doubt

My uncle practises more harm to me:

He is afraid of me, and I of him.

Is it my fault that I was Geoffrey's son?

No, indeed, is't not; and I would, in sooth,

I were your son, so you would love me, Hubert.

Hub. [*Aside*] If I talk to him, with his innocent prate
He will awake my mercy, which lies dead:

Therefore I will be sudden and dispatch.

Arth. Are you sick, Hubert? you look pale to-day:

In sooth, I would you were a little sick,
That I might sit all night and watch with you:
I warrant I love you more than you do me.

Hub. [*Aside*] His words do take possession of my bosom.

Read here, young Arthur.

[*Showing a paper.*]

[*Aside*] How now, foolish rheum!
Turning spiteous¹³ torture out of door!

I must be brief, lest resolution drop

Out at mine eyes, in tender womanish tears.—

Can you not read it? is it not fair writ?

Arth. Too fairly, Hubert, for so foul effect:

Must you with hot irons burn out both mine eyes?

Hub. Young boy, I must.

Arth.

And will you?

Hub.

And I will.

Arth. Have you the heart? When your head did but ache,
I knit my handkerchief about your brows,
(The best I had—a princess wrought it for me,)

And I did never ask it you again ;
 And with my hand at midnight held your head ;
 And, like the watchful minutes to the hour,
 Still and anon cheered up the heavy time ;
 Saying, What lack you ? and, Where lies your grief ?
 Or, What good love may I perform for you ?
 Many a poor man's son would have lain still,
 And ne'er have spoke a loving word to you ;
 But you at your sick service had a prince.
 Nay, you may think my love was crafty love,
 And call it 'cunning : do, an if¹⁴ you will :
 If Heaven be pleased that you must use me ill,
 Why then you must.—Will you put out mine eyes ?
 These eyes, that never did, nor never shall,
 So much as frown on you ?

Hub. I have sworn to do it ;

And with hot irons must I burn them out.

Arth. Ah, none but in this iron age would do it !
 The iron of itself, though heat¹⁵ red-hot,
 Approaching near these eyes, would drink my tears,
 And quench his fiery indignation
 Even in the matter of mine innocence :
 Nay, after that, consume away in rust,
 But for containing fire to harm mine eye.
 Are you more stubborn-hard than hammered iron ?
 An if an angel should have come to me,
 And told me, Hubert should put out mine eyes,
 I would not have believed him,—no tongue¹⁶ but Hubert's.

Hub. Come forth. [Stamps.

Re-enter Attendants, with cords, irons, &c.

Do as I bid you.

Arth. O, save me, Hubert, save me ! my eyes are out,
 Even with the fierce looks of these bloody men.

Hub. Give me the iron, I say, and bind him here.

Arth. Alas ! what need you be so boisterous-rough ?
 I will not 'struggle, I will stand stone-still.
 For pity, Hubert, let me not be bound !
 Nay, hear me, Hubert ! drive these men away,
 And I will sit as quiet as a lamb ;
 I will not stir, nor wince, nor speak a word,
 Nor look upon the iron angrily :
 Thrust but these men away, and I'll forgive you,
 Whatever torment you do put me to.

Hub. Go, stand within ; let¹⁷ me alone with him.

1st Attend. I am best pleased to be from such a deed.

[Exeunt Attendants.

Arth. Alas ! I then have chid away my friend !
 He hath a stern look, but a gentle heart :

Let him come back, that his 'compassion may
Give life to yours.

Hub. Come, boy, prepare yourself.

Arth. Is there no 'remedy?

Hub. None, but to lose your eyes.

Arth. O Hubert, were there but a mote in yours,
A grain, a dust, a gnat, a wandering hair,
Any 'annoyance in that precious sense!
Then, feeling what small things are 'boisterous there,
Your vile intent must needs seem horrible.

Hub. Is this your promise? go to hold your tongue.

Arth. Hubert, the 'utterance of a brace of tongues
Must needs want pleading¹⁸ for a pair of eyes:
Let me not hold my tongue; let me not, Hubert;—
Or, Hubert, if you will, cut out my tongue,
So I may keep mine eyes. O, spare mine eyes;
Though to no use but still to look on you!—
Lo, by my troth, the 'instrument is cold,
And would not harm me!

Hub. I can heat it, boy.

Arth. No, in good sooth; the fire is dead with grief,
Being create¹⁵ for comfort, to be used
In 'undeserved extremes. See else yourself;
There is no malice in this burning coal;
The breath of heaven hath blown his spirit out,
And strewed 'repentant ashes on his head.

Hub. But with my breath I can revive it, boy.

Arth. And if you do, you will but make it blush
And glow with shame of your 'proceedings, Hubert:
Nay, it perchance will sparkle in your eyes;
And, like a dog that is compelled to fight,
Snatch at his master that doth tarre¹⁹ him on.
All things, that you should use to do me wrong,
Deny their office: only you do lack
That mercy which fierce fire and iron extends,
Creatures of note for mercy-lacking uses.

Hub. Well, see to live; I will not touch thine eyes
For all the treasure that thine uncle owes:²⁰
Yet am I sworn, and I did purpose, boy,
With this same very iron to burn them out.

Arth. O, now you look like Hubert! all this while
You were 'disguised.

Hub. Peace: no more. Adieu.
Your uncle must not know but you are dead:
I'll fill these dogged spies with false reports.
And, pretty child, sleep doubtless and secure,
That Hubert, for the wealth of all the world,
Will not offend thee.

Arth. O Heaven!—I thank you, Hubert.

Hub. Silence; no more: go closely in with me.
Much danger do I undergo for thee.

[*Exeunt.*]

annoy'ance, cause of pain.
approach'ing, advancing.
ashamed', abashed'.
attend'ed, followed.
au'dience, hear'ing.
bois'terous, violent.
calam'ity, affliction.
compas'sion, pity.
cun'ning, deceit'.
disguised', masked.
disor'der, derangement.
dispatch', make haste.
heed'ful, care'ful.
heinous, serious.
indigna'tion, wrath.

in'nocence, blame'lessness
in'strument, im'plement.
intend', purpose
mea'gre, emaciated.
mel'ancholy, sad'ness.
mer'riment, mirth.
offend', in'jure.
out'rage, in'jury.
philos'ophy, abstrac'tion.
plague, stroke; trial.
prac'tises, works
proceed'ings, do'ings.
redeem', recover.
reun'dy, relief; cure.
repent'ant, pen'itent.

respect', regard'.
scrup'les, doubts.
ser'pent, viper.
strug'gle, contend'.
inspire', breathe.
tor'ture, tor'ment.
undergo', incur'.
undertake', perform'.
undeserved', unmer'ited.
ut'terance, speak'ing.
va'cant, empty.
wan'tonness, playfulness
war'runt, commis'sion.
watch'ful, atten'tive.
wo'manish, effem'inate.

¹ Bound'en, obliged; beholden. [Old Eng. *bindan*, to bind; so *obligation* is from Lat. *ligare*, to bind.]

² Gauds, ornaments. [Old Eng. *gaurd*; whence *gaudy*, showy.]

³ Conceit, thought; that which is conceived in the mind, as opposed to that which is spoken.

⁴ Troth, truth. Both words are connected in root with *true*, *trust*, and *throw*.

⁵ Adjunct to my act—dependent or consequent upon my act.

⁶ Geoffrey.—King John's elder brother, Geoffrey, was the third son of Henry II. In strict law, therefore, Geoffrey's son, Arthur, had a better claim to the crown than his uncle King John had. King John knew this, and hence his anxiety to get rid of his nephew.

⁷ Canker, corroding, cancerous; referring to the effect of sorrow in eating away the spirit and the bloom of health.

⁸ That never had a son.—These words refer, of course, not to "me" but to "he." The meaning is, It is plain, from the way in which he speaks, that he never had a son.

⁹ Remembers, reminds.

¹⁰ Heat me these irons hot—that is, Make them as hot as possible, red-hot.

¹¹ The arras, hangings of tapestry with which walls of rooms were covered in olden times;—so called from *Arras* in the north of France, where they were first made.

¹² As little prince—I am as little of a prince, I have as little of princely power, as may be. An instance of Shakespeare's

fondness for playing upon words, even in the most serious scenes.

¹³ Dispit'eous, pit'iless; cruel. But the word is not a compound of *dis* and *pit'eous*. Its older form is *despitous*, meaning full of *despite*; which is from the French *dépit*, contempt; and that from Latin *despicere*, to despise.

¹⁴ An if.—The two words have the same meaning. In modern English *if alone* is used; in earlier times *an alone* was sometimes used for *if*; but the common construction was *an if*. *An*, in this sense, is a form of *and*.

¹⁵ Heat...create, for *heated*, *created*. In Shakespeare, and in older writers, verbs ending in *t* and *d* very often had no suffix (*-ed*) for the past tense or passive participle.

¹⁶ No tongue but Hubert's.—Supply before these words, *I would have believed*.

¹⁷ Let, leave. The root meaning is *loose, slack*. *Let*, to delay (to be loose in action), and *let* to hinder (to cause another to delay); *late* and *lazy*, *less* and *least*, *loose* and *loosen*, are all from the same root.

¹⁸ Must needs want pleading.—*Want* here means, fall short or be inadequate—the utterance even of a brace of tongues would be insufficient to plead for a pair of eyes.—*Needs* means, of necessity.

¹⁹ Tarre, excite, or provoke.

²⁰ Owes, possesses; used in the sense of *owns*, which is from the same root. *Owe* has three different meanings in Shakespeare—to be indebted; to have a right to; and to possess.

KING JOHN.

PART II.

KING JOHN, alarmed at the disaffection of his nobles and people, repents of his conduct towards Prince Arthur, and accuses Hubert of tempting him to accede to the murder.

SCENE.—*A Room of State in the Palace.*

Enter a Messenger.

K. John. A fearful eye thou hast ; where is that blood
That I have seen inhabit in those cheeks ?
So foul a sky clears not without a storm :
Pour down thy weather : how goes all in France ?

Mess. From France to England.¹—Never such a power
For any foreign preparation
Was levied in the body of a land !
The copy of your speed² is learned by them ;
For when you should be told they do prepare,
The tidings come that they are all arrived.

K. John. O, where hath our intelligence been drunk ?
Where hath it slept ? Where is my mother's care,
That such an army could be drawn in France,
And she not hear of it ?

Mess. My liege, her ear
Is stopped with dust ; the first of April died
Your noble mother : and, as I hear, my lord,
The Lady Constance in a frenzy died
Three days before : but this from rumour's tongue
I idly heard ; if³ true, or false, I know not.

K. John. Withhold thy speed, dreadful occasion !
O, make a league with me, till I have pleased
My discontented peers ! *[Exit Messenger.*
My mother dead !

Enter HUBERT.

Hub. My lord, they say five moons were seen to-night ;
Four fix'd, and the fifth did whirl about
The other four, in wondrous motion.

K. John. Five moons !

Hub. Old men and beldams,⁴ in the streets,
Do prophesy upon it dangerously :
Young Arthur's death is common in their mouths :
And when they talk of him, they shake their heads,
And whisper one another in the ear ;
And he that speaks doth gripe the hearer's wrist ;
Whilst he that hears makes fearful action,
With wrinkled brows, with nods, with rolling eyes.

I saw a smith stand with his hammer, thus,
 The whilst his iron did on the anvil cool,
 With open mouth swallowing a tailor's news;
 Who, with his shears and measure in his hand,
 Standing on slippers (which his nimble haste
 Had falsely thrust upon contrary feet),
 Told of a many thousand⁵ warlike French
 That were embattail'd⁶ and ranked in Kent:
 Another lean unwashed 'artificer
 Cuts off his tale, and talks of Arthur's death.

K. John. Why seek'st thou to possess me with these fears?
 Why urgest thou so oft young Arthur's death?
 Thy hand hath murdered him: I had mighty cause
 To wish him dead, but thou hadst none to kill him.

Hub. Had none, my lord! why, did you not 'provoke me?

K. John. It is the curse of kings to be attended
 By slaves, that take their 'humours for a warrant
 To break within the bloody house of life;
 And, on the winking of authority,
 To understand a law; to know the meaning
 Of dangerous majesty, when, perchance, it frowns
 More upon humour than 'advised respect.

Hub. Here is your hand and seal for what I did.

K. John. O, when the last account 'twixt heaven and earth
 Is to be made, then shall this hand and seal
 Witness against us to damnation!
 How oft the sight of means to do ill deeds
 Makes deeds ill done! Hadst not thou been by,
 A fellow by the hand of Nature marked,
 Quoted⁷ and signed to do a deed of shame,
 This murder had not come into my mind:
 But, taking note of thy 'abhorred aspect',
 Finding thee fit for bloody villany,
 Apt, liable to be employed in danger,
 I faintly broke with thee of Arthur's death;
 And thou, to be 'endeared to a king,
 Made it no conscience to destroy a prince.

Hub. My lord,—

K. John. Hadst thou but shook thy head, or made a pause,
 When I spake darkly what I purposed;
 Or turned an eye of doubt upon my face,
 And bid me tell my tale in express words;
 Deep shame had struck me dumb, made me break off,
 And those thy fears might have wrought fears in me:
 But thou didst understand me by my signs,
 And didst in signs again parley with sin;
 Yea, without stop, didst let thy heart consent,
 And 'consequently thy rude hand to act
 The deed, which both our tongues held vile to name.—

Out of my sight, and never see me more!
 My nobles leave me; and my state is braved,⁸
 Even at my gates, with ranks of foreign powers:
 Nay, in the body of this fleshly land,
 This kingdom, this confine of blood and breath,
 Hostility and civil tumult reigus
 Between my conscience and my cousin's death.

Hub. Arm you against your other enemies,
 I'll make a peace betwixt your soul and you.
 Young Arthur is alive: this hand of mine
 Is yet a maiden and an innocent hand,
 Not painted with the crimson spots of blood.
 Within this bosom never entered yet
 The dreadful motion of a murderous thought;
 And you have slandered Nature in my form,
 Which, howsoever rude exteriorly
 Is yet the cover of a fairer mind
 Than to be butcher of an innocent child.

K. John. Doth Arthur live? O, haste thee to the peers,
 Throw this report on their incens'd rage,
 And make them tame to their obedience!
 Forgive the comment that my passion made
 Upon thy feature; for my rage was blind,
 And foul imaginary eyes of blood
 Presented thee more hideous than thou art.
 O, answer not, but to my closet bring
 The angry lords, with all expedient haste.
 I conjure thee but slowly; run more fast.

[*Exeunt.*]

Arthur, disguised as a sailor boy, tries to escape. He leaps from the castle wall, and is killed.

SCENE.—*The Castle walls*

Arth. The wall is high; and yet will I leap down:—
 Good ground, be pitiful, and hurt me not!—
 There's few, or none, do know me; if they did,
 This ship-boy's semblance hath disguised me quite.
 I am afraid; and yet I'll venture it.
 If I get down, and do not break my limbs,
 I'll find a thousand shifts to get away:
 As good to die and go, as die and stay.— [Leaps down.
 O me! my uncle's spirit is in these stones:—
 Heaven take my soul, and England keep my bones! [Dies.

Pembroke, Salisbury, Bigot, and Faulconbridge enter, and discover his dead body on the ground.

Enter HUBERT.

Hub. Lords, I am hot with haste in seeking you:
 Arthur doth live; the king hath sent for you.

Sal. [*Pointing to the body*] O, he is bold, and blushes not at death.—

'Avaunt, thou hateful villain, get thee gone!

Hub. I am no villain.

Sal. Must I rob the law? [*Drawing his sword.*]

Faul. Your sword is bright, sir; put it up again.

Sal. Not till I sheathe it in a murderer's skin.

Hub. Stand back, Lord Salisbury, stand back, I say;

In truth, I think my sword's as sharp as yours:

I would not have you, lord, forget yourself,

Nor tempt the danger of my true defence;

Lest I, by marking of your rage, forget

Your worth, your greatness and nobility.

Big. Out, dunghill! dar'st thou brave a nobleman?

Hub. Not for my life;⁹ but yet I dare defend

My innocent life against an emperor.

Sal. Thou art a murderer.

Hub. Do not prove me so;¹⁰

Yet, I am none: whose tongue soe'er speaks false,

Not truly speaks; who speaks not truly, lies.

Pem. Cut him to pieces!

Faul. Keep the peace, I say.

Sal. Stand by, or I shall gall you, Faulconbridge.

Faul. If thou but frown on me, or stir thy foot,

Or teach thy hasty spleen to do me shame,

I'll strike thee dead. Put up thy sword betime.

Big. What wilt thou do, 'renowned Faulconbridge?

Second a villain and a murderer!

Hub. Lord Bigot, I am none.

Big. Who killed this prince?

Hub. 'Tis not an hour since I left him well.

I 'honoured him, I loved him; and will weep

My date of life out for his sweet life's loss.

Sal. Trust not those cunning waters of his eyes,

For villany is not without such rheum;¹¹

And he, long traded in it, makes it seem

Like rivers of remorse and innocency.

Away, with me, all you whose souls abhor

The nucleantly 'savours of a slaughter-house;

For I am stifled with the smell of sin.

Big. Away, toward Bury, to the Dauphin there!

Pem. There, tell the king, he may inquire us out.

[*Exeunt Lords.*]

Faul. Here's a good world!—Knew you of this fair work?

Beyond the 'infinite and boundless reach

Of mercy, if thou didst this deed of death,

Art thou doomed, Hubert.

Hub. Do but hear me, sir.

Faul. Ha! I'll tell thee what;

Thou art stained as black—nay, nothing so black
As thou shalt be, if thou didst kill the child.

Hub. Upon my soul—

Paul. If thou didst but consent
To this most cruel act, do but despair;
And, if thou want'st a cord, the smallest thread
That ever spider twisted from her womb
Will serve to 'strangle thee; a rush will be
A beam to hang thee on: or wouldst thou drown thyself,
Put but a little water in a spoon,
And it shall be as all the ocean,
Enough to stifle such a villain up.—
I do suspect thee very 'grievously.

Hub. I left him well.

• *Paul.* Go, bear him in thine arms.—
I am amazed, methinks; and lose my way
Among the thorns and dangers of this world.—
How easy dost thou take all England up
From forth this morsel of dead royalty,
The life, the right and truth of all this realm,
Is fled to heaven; and England now is left
To tug and 'scamble, and to part by the teeth
The unwowed interest of proud-swellings state.
Now, for the bare-picked bone of majesty,
Doth dogg'd War bristle his angry crest,
And snarleth in the gentle eyes of Peace:
Now powers from home, and discontents at home,
Meet in one line; and vast 'confusion waits
(As doth a raven on a sick-fallen beast)
The 'imminent decay of wrested pomp.
Now happy he whose cloak and cincture¹² can
Hold out this tempest.—Bear away that child,
And follow me with speed; I'll to the king:
A thousand 'businesses are brief in hand,
And Heaven itself doth frown upon the land.

[*Exeunt.*

The Dauphin, aided by the disaffected nobles of England, gives battle to John at St. Edmund's-Bury. The king's troops are repulsed, and John is conveyed to Swinstead Abbey, sick of a fever. There the King dies.

SCENE.—*Swinstead Abbey.*¹³

Enter BIGOT and Attendants, who bring in KING JOHN in a chair.

K. John. Ay, marry, now my soul hath elbow-room;
It would not out at windows, nor at doors.
There is so hot a summer in my bosom,
That all my bowels crumble up to dust:
I am a scribbled form, drawn with a pen

Upon a 'parchment, and against this fire
Do I shrink up.

P. Henry. How fares your majesty?

K. John. Poisoned—ill fare;—dead, forsook, cast off:
And none of you will bid the Winter come,
To thrust his icy fingers in my maw;¹⁴
Nor let my kingdom's rivers take their course
Through my burned bosom, nor entreat the North
To make his bleak winds kiss my parch'd lips,
And comfort me with cold. I do not ask you much,
I beg cold comfort; and you are so strait,
And so ungrateful, you deny me that.

P. Henry. O that there were some virtue in my tears,
That might relieve you!

K. John. The salt in them is hot.
Within me is a hell; and there the poison
Is, as a fiend, confined to tyrannize
On 'unretrievable condemn'd blood.

Enter FAULCONBRIDGE.

Faul. O, I am scalded with my violent motion,
And spleen of speed to see your majesty!

K. John. O cousin, thou art come to set mine eye:¹⁵
The tackle of my heart is cracked and burned;
And all the shrouds, wherewith my life should sail,
Are turn'd to one thread, one little hair:
My heart hath one poor string to stay it by,
Which holds but till thy news be utter'd;
And then all this thou seest is but a clod,
And module¹⁶ of 'confounded royalty.

Faul. The Dauphin is preparing hitherward;
Where Heaven He knows how we shall answer him:
For, in a night, the best part of my power,
As I upon advantage did remove,
Were in the Washes¹⁷ all unwarily
Devour'd by the unexpected flood. [*The KING dies.*]

Sal. You breathe these dead news in as dead an ear.—
My liege! my lord! but now a king, now thus!

P. Henry. Even so must I run on, and even so stop.
What surety of the world, what hope, what stay,
When this was now a king, and now is clay?—
At Worcester must his body be interr'd,
For so he willed it.

Faul. Thither shall it then.
And happily may your sweet self put on
The lineal state and glory of the land!
To whom, with all submission, on my knee
I do bequeath my faithful services
And true subjection everlastingly.

Sal. And the like tender of our love we make,
To rest without a spot for evermore.

P. Henry. I have a kind soul, that would give you thanks,
And knows not how to do it, but with tears.

Faul. O let us pay the time but needful woe,
Since it hath been beforehand with our grie's.—
This England never did, (nor never shall,)
Lie at the proud foot of a conqueror,
But when it first did help to wound itself.
Now these her priuces are come home again,
Come the three corners of the world in arms,
And we shall shock them! Nought shall make us rue,
If England to itself do rest but true. [*Exeunt.*]

abhorred', hated.
advised', intentional.
artificer, work'man.
avaunt', begone.
bus'inesses, affairs'.
comment, criticism.
confounded, baffled.
confusion, tumult.
consequently, therefore.
devoured, swallowed up.
discontent'ed, dissatisfied.
endear'ed, made a favourite.

expedient, prompt.
grievously, painfully.
honoured, revered'.
hostility, war.
humours, whims.
imminent, threatening.
incensed, infuriated.
infinite, boundless.
inhabit, dwell.
intelligence, information.
nobility, rank.
parchment, scroll.

preparation, equipment.
prophecy, predict'.
provoke, incite'.
remorse, regret'.
renowned, illustrious.
sa'vours, odours.
scamble, struggle.
semblance, disguise'.
slandered, defamed'.
strangle, suffocate.
unperceivable, not to be
respected.

¹ From France to England.—That is, All in France goes from France to England.

² The copy of your speed.—Referring to the remarkable speed which had attended King John's invasion of France in the earlier part of the play, and of which the Dauphin had said,—

"So hot a speed, with such advice disposed,
Such temperate order in so fierce a cause,
Doth want example."

³ If, whether.

⁴ Bel'dams, old women; *lit.* fine-lady; but *belle* is used as a prefix in French (much as *grand* is used in English); for example, *belle-mère*, mother-in-law.

⁵ A many thousand, many a thousand. *A* is used before *many*, or a word expressing number, when the whole of the things are to be regarded as one mass; for example, "An eight days." (*Luke*, ix. 28.)

⁶ Embat'tail'd, marshalled in order of battle.

⁷ Quoted, marked; noted.

⁸ Braved, set at defiance. To brag, to

boast, is from the same root; the primary meaning of which is to crack, and so to attract notice. Hence, also, *Sc. braw*, showy; *Fr. brave*, gay, gallant; *O. E. brave*, handsome; and modern *brave*, courageous.

⁹ Not for my life = I dare not for my life defy a nobleman; yet I dare defend my innocent life against any man, even an emperor.

¹⁰ Do not prove me so, by provoking me to kill *you*.

¹¹ Rheum, tears; *lit.* any fluid. It comes from a Greek word meaning to flow.

¹² Cincture, belt, or girdle; *lit.* anything which binds or surrounds.

¹³ Swinstead Abbey.—The historical account gives Newark Castle in Nottinghamshire as the scene of King John's death.

¹⁴ Maw, mouth.

¹⁵ To set mine eye = To close mine eyes after I am dead.

¹⁶ Mod'ule, a model or image.

¹⁷ The Washes, between Norfolk and Lincoln, where King John lost his baggage and regalia in 1216.

PUNCTUATION.

THE following passage will show the importance of Punctuation :—

"Hubert rode on his brother's horse being lame he did not reach home till midnight."

As the words stand, they admit of several meanings. In reading the passage aloud, these different meanings are indicated by breaks or pauses. In writing or printing it, they are indicated by the insertion of points. It may be read and pointed in at least three ways :—

1. Hubert rode on his brother's horse, being lame. He did not reach home till midnight. 2. Hubert rode on. His brother's horse being lame, he did not reach home till midnight. 3. Hubert rode on, his brother's horse being lame. He did not reach home till midnight.

The primary use of punctuation, therefore, is to prevent mistakes, and to make the meaning of what we write as plain as possible.

The above example shows that points are required to separate words that are to be kept apart in meaning. But while points thus *disjoin* the words between which they stand, they serve at the same time to *conjoin* the words that stand between them. Thus in No. 3, the comma (,) after "on" not only separates that word from "his brother's horse," but it also forces us to take together the words "his-brother's-horse-being-lame," as the expression of a single thought. This, then, is the double purpose of punctuation,—first to separate, and then to give distinctness to each of the separated parts.

In ordinary cases, two points are sufficient for this purpose :—

The **Period**, to separate sentence from sentence ;

The **Comma**, to separate the distinct parts of a sentence from each other.

These are the points most frequently used, and some authors rarely use any others. But when a sentence is long, and complicated in structure, its meaning may be made clear by the use of the **Semicolon** (;) and the **Colon** (:).

For example, when a sentence consists of two or more great divisions, within which commas are used, it is desirable to separate the great divisions from each other by a different point ; and for this purpose the *semicolon* is employed.

EXAMPLES.—Sloth makes all things difficult, but Industry all easy ; and he that riseth late must trot all day, and shall scarce overtake his business at night ; while Laziness travels so slowly, that Poverty soon overtakes him.

There is a tide in the affairs of men,
Which, taken at the flood, leads on to fortune ;
Omitted, all the voyage of their life
Is bound in shallows and in miseries.

In like manner, when parts of a division are separated by semicolons, the divisions themselves must be separated by a *colon*.

EXAMPLES.—If this life is unhappy, it is a burden to us which it is difficult to bear ; if it is in every respect happy, it is dreadful to be deprived of it : so that, in either case, the result is the same ; for we must exist in anxiety and apprehension.

Hear me for my cause ; and be silent, that you may hear : believe me for mine honour ; and have respect to mine honour, that you may believe : censure me in your wisdom ; and awake your senses, that you may the better judge.

SPECIAL RULES.

1. Explanatory and parenthetical words are marked off from the rest of the sentence by commas.

EXAMPLES.—Shakespeare, *the great dramatist*, was born at Stratford-on-Avon, *where he also died*.—History, *moreover*, is a very profitable study.

The effect of two commas in such cases is much the same as that of the parenthesis ().

2. When the explanation limits the word to which it belongs, or implies contrast, no commas should be used.

EXAMPLES.—Jonson *the dramatist* must not be confounded with Johnson *the critic*.—His library is rich in books *which treat of the progress of the physical sciences*.

3. A series of words of the same kind, whether single or in pairs, is divided by commas.

EXAMPLES.—Henry was *kind, liberal, and forgiving*.—He was *kind and liberal, gentle and forgiving*.

4. A sudden break in the structure of a sentence is indicated by a dash (—).

EXAMPLE.—If you had not come, I should have supposed—but *why discuss this when you are here?*

5. When the original structure of the sentence is resumed, a second dash must be inserted.

EXAMPLE.—The defects and faults of “Paradise Lost”—*for faults and defects every work of man must have*—it is the business of impartial criticism to discover.

6. The dash is used before an enumeration of particulars.

EXAMPLE.—Napoleon sacrificed everything to his aim—*money, troops, generals, even his own safety*.

7. The dash is also used between two sentences which relate to different subjects, or which are addressed to different persons.

EXAMPLE —

“King (to Hotspur). Send me your prisoners with the speediest means,
Or you shall hear in such a kind from me
As will displease you —My Lord Northumberland,
We license your departure with your son —
Send us your prisoners, or you will hear of it.”

8. Each part of a direct quotation is enclosed between inverted commas.

EXAMPLE.—“Reading,” says Bacon, “maketh a full man, conference a ready man, writing an exact man.”

9. When a quotation forms an independent sentence, it is preceded by a colon.

EXAMPLE.—When Preston had read the sentence of William’s Declaration in which the spiritual peers were referred to, King James proceeded: “My lords, I do not believe one word of this. I am satisfied of your innocence; but I think it fit to let you know of what you are accused.”

In the above case the comma and dash are sometimes used.

EXAMPLE.—How well the silent anguish of Macduff is conveyed to the reader by the friendly expostulation of Malcolm,—“What, man! ne’er pull your hat upon your brows.”

10. When a quotation forms an independent paragraph, it is preceded by a colon and a dash.

EXAMPLE.—Few men would envy the character which Cæsar gives of Cassius:—

“He loves no play,
As thou dost, Antony; he hears no music;
Seldom he smiles; and smiles in such a sort,
As if he mocked himself, and scorned his spirit
That could be moved to smile at anything.”

The same rule applies to an enumeration of heads or classes.

EXAMPLE.—The following are the four principal seas of Europe:—

- | | | |
|---------------------------|--|----------------------------------|
| 1. <i>The Baltic Sea.</i> | | 3. <i>The Mediterranean Sea.</i> |
| 2. <i>The North Sea.</i> | | 4. <i>The Black Sea.</i> |

11. The interrogation (?) is used after questions; and the exclamation (!) after expressions of surprise or sorrow.

EXAMPLE.—O shame! where is thy blush?

12. The parenthesis () is used to enclose explanatory words which do not belong to the grammatical structure of the sentence.

EXAMPLE.—Jamaica pepper (*called also allspice*) is the unripe berry of an evergreen shrub dried in the sun.

DICTATION EXERCISES.

FOR PRACTICE IN PUNCTUATION.*

1. The king, surrounded by his courtiers, proceeded to the palace. We may, however, let that pass. Shakespeare the man is inseparable from Shakespeare the poet. It is impossible to describe his scorn, loathing, and contempt. A considerable part of his life has generally been spent in the capital, and the refinements of the capital follow him into the country.

2. Looking to the left, towards the gorge, we beheld six compact masses of infantry. The large, heavy, iron bar fell on him. The door of the cell was softly opened; and there lay Argyle on the bed, sleeping, in his irons, the placid sleep of infancy. When I look upon the tombs of the great, every emotion of envy dies in me; when I meet with the grief of parents upon a tombstone, my heart melts with compassion; when I see the tomb of the parents themselves, I consider the vanity of grieving for those whom we must quickly follow.

3. The boy, surrounded by his tormentors, was unable to escape. To tell the truth, I was not greatly struck by his appearance. The soul that sinneth, it shall die. High and low, rich and poor, young and old, meet together. The integrity, gravity, and bravery of the Turks, form an exact contrast to the deceit, levity, and cowardice of the modern Greeks.

4. He remained in the land of his adoption, for many years, with great profit to himself. He was reserved, proud, and haughty. Where we now see a port crowded with shipping, and a market-place swarming with buyers and sellers, the waves then broke on a desolate beach; but a fragment of

* The teacher will dictate the sentences without giving the points, and require the pupils to insert them in their exercises.

the rock on which the deliverer stepped from his boat has been carefully preserved, and is set up as an object of public veneration in the centre of that busy wharf. It was broad day before the man arrived, and he found the work not even half performed.

5. In the midst of the most serene day of summer, the sky being clear and unclouded, a loud peal of thunder was distinctly heard, apparently in the west. He laboured patiently, earnestly, and laboriously. There was no reason, however, why I should refrain from seeing the person who had inconsiderately sent her to so great a distance, by night and alone; and, as it was not improbable that, if she found herself near home, she might take farewell of me, and deprive me of the opportunity, I avoided the most frequented ways, and took the most intricate. Be not too familiar with thy servants; at first it may beget love, but in the end it will breed contempt.

6. In a custom of such long standing, methinks, if the bishops had, in decency, been first sounded—but I am wading out of my depths. I might dilate on the difficulties which attended that undertaking—the temper of the people, the power, arts, and interests of the contrary party; but these are all invidious topics. Poetry—far from injuring society—is one of the great instruments of its refinement.

7. And now the bell—the bell she had so often heard, by night and day, and listened to with solemn pleasure, almost as to a living voice—rang its remorseless toll for her, so young, so beautiful, so good. When Phocion, the modest and gentle Phocion, was led to execution, he turned to one of his fellow-sufferers, who was lamenting his own hard fate: “Is it not glory enough for you,” said he, “that you die with Phocion?” Ah me! how sweet the moonlight sleeps upon this bank!

8. Pleasure and terror are, indeed, the genuine sources of poetry; but poetical pleasure must be such as human imagination can at least conceive, and poetical terror such as human strength and fortitude may combat. The slaves of domestic tyranny may vainly exult in their national independence: but the Arab is personally free; and he enjoys, in some degree, the benefits of society, without forfeiting the prerogatives of nature.

9. There was, however,—as in all human affairs there is,—in the midst of this joy something to exercise the patience of these worthy gentlemen, and to try the long-suffering of their faith. “Examine now,” said he, “this sea that is bounded with darkness at both ends, and tell me what thou discoverest in it.”—“I see a bridge,” said I, “standing in the midst of the tide.”—“The bridge thou seest,” said he, “is human life; consider it attentively.” O king, live for ever! Come forth! O ye children of gladness, come!

10. Cromwell died on the 3rd of September 1658—the anniversary of two of his great victories (Dunbar and Worcester), and the day which he had always considered the brightest in the year. The following is from *Shakespeare*:—

All the world's a stage,
And all the men and women merely players;
They have their exits and their entrances;
And one man in his time plays many parts,
His acts being seven ages

THE BRITISH CONSTITUTION.

THE Government of the British Empire is vested in the **Sovereign** and the two Houses of Parliament,—the **House of Lords** and the **House of Commons**. It is thus a mixed government,—not pure monarchy, or pure aristocracy, or pure democracy, but a compound of all three. In this composite character lies its chief strength. Every grade of society, every interest in the country, is represented in it. The power of the landed aristocracy has its due weight in the House of Lords. That of the great middle class, and of the industrial classes who coöperate with them in producing wealth, is supreme in the House of Commons. The influence of an ancient hereditary monarchy is preserved in the Sovereign, who crowns the edifice.

The chief business of the two Houses of Parliament is to make laws, and to vote money for the public service. In theory, the power of carrying out the laws belongs to the Sovereign alone; but in practice, this is done in the Sovereign's name by the **Ministry**,—a body of advisers chosen from both Houses of Parliament. Now, the Ministry is responsible to Parliament for the conduct of affairs, and whenever it ceases to have the confidence of Parliament, the Sovereign must choose another body of advisers. Thus Parliament is virtually supreme.

The crown is hereditary, and may be worn either by a King or by a Queen, who must be a Protestant of the Church of England. The Sovereign has power to make war or peace; to pardon a convicted criminal; to summon, "pro-
rogue, or dissolve Parliament; to coin money; and to confer nobility. The assent of the Sovereign is also necessary to every new law. But, as already explained, these prerogatives are now exercised by the Sovereign under the advice of the Ministry for the time being; or by the Ministry in the name of the Sovereign.

The **House of Lords**, or Upper House of Parliament, comprises Lords Spiritual and Lords Temporal, as follows:—

LORDS SPIRITUAL.	
English Archbishops.....	2
English Bishops.....	24
	<hr/> 26
LORDS TEMPORAL.	
Royal Princes.....	5
English hereditary Peers.....	338
Scottish hereditary Peers, who are also English or British.....	50
Irish hereditary Peers, who are also English or British.....	81
Scottish representative Peers, elected for each Parliament.....	16
Irish representative Peers, elected for life.....	28
Life Peers.....	3
	<hr/> 547

The Lord Chancellor, sitting on the woolsack, acts as president or chairman of the Lords. The Upper House forms the highest court of justice, to decide appeals from the inferior courts. Any bill, except a money bill, may originate in the House of Lords.

The **House of Commons**, or Lower House of Parliament, consists of representatives of the counties, boroughs, and universities in England and Wales, Scotland, and Ireland, distributed as follows:—

	England and Wales.	Scotland.	Ireland.	Total.
CountyMembers	258	39	89	381
City and Borough "	237	31	12	280
University..... "	5	2	2	9
Total.....	495	72	103	670

The electors are—both in *boroughs* and in *counties*—all householders rated for relief of the poor, lodgers occupying rooms valued at £10 a year unfurnished, and persons in service who occupy free houses as part of their remuneration. The chairman of the Commons is called the *Speaker*, because he is their spokesman or representative in approaching the Sovereign. A new Speaker is elected at the beginning of each new Parliament. Money bills can originate in the House of Commons alone; and thus commanding the sources of supply, it can effectually control the Sovereign.

In great emergencies it also practically controls the Upper House; for a Ministry, strongly supported in the House of Commons, may advise the Sovereign to create a sufficient number of new peers to give its party a majority in the House of Lords. The threat of this measure has generally induced the Lords to yield to the wishes of the Commons.

The process of law-making is conducted as follows:—The proposed law is introduced in either House, after leave has been given, in the form of a Bill. It is then read for the *first time*, without opposition, and is ordered to be printed, to acquaint the members with its details. It is then circulated, and a day is fixed for the *second reading*. The first debate and voting take place on the question whether the bill shall pass this reading or not. If it pass the second reading, the House proceeds to consider and vote upon each clause in the bill separately. For this purpose, the House goes “into committee.” This committee consists of the same members as the House; but the chairman of committees takes the place of the Speaker, and the strict rules of debate and forms of procedure observed in the House are considerably relaxed. After the bill has passed through committee, it is “reported” to the House in its amended form, and is ready for the *third reading*. If it pass this reading, it is then sent to the other House.

There it undergoes an exactly similar process; three readings, with a careful examination in committee between the second and the third. If amended or altered there, the bill is sent back to the House in which it originated, which either agrees to these amendments or not, and may demand a conference with the other House to settle differences.

When the bill has finally passed both Houses, the **royal assent** is required before it becomes an Act or law. This is given either personally or by commission. No Sovereign has ventured to exercise the right of *veto*—that is, of withholding the royal assent—since 1707.

From very early times, the advisers of the Sovereign have been known as

the **Privy Council**, the members of which are dignified with the title of **Right Honourable**. But this body was found to be too numerous, and too widely scattered, for the systematic transaction of business. It moreover consists of men of different parties and conflicting views. It therefore became customary, after the Revolution of 1688, to intrust the government to a committee of the Privy Council, called the **Ministry**, or the **Cabinet**. But now ministers are not selected from the Privy Council, but from Parliament, and become privy councillors afterwards.

The head of the Ministry is the **Prime Minister**, or **Premier**. He used to owe his office to the good-will or favour of the Sovereign, but now he owes it to the confidence of his supporters in Parliament. The Sovereign chooses as Premier the recognized leader of that political party which has a majority in the House of Commons for the time, and intrusts him with the task of forming a Ministry from among his own supporters.

The chief ministers form the **Cabinet**, which determines the general policy of the Ministry, and the measures which are to be proposed to Parliament. The Cabinet consists necessarily of—

1. The Premier, or First Lord of the Treasury.
2. The Lord Chancellor.
3. The Chancellor of the Exchequer.
4. The Home Secretary
5. The Foreign Secretary.
6. The Colonial Secretary.
7. The Indian Secretary.
8. The Secretary at War
9. The President of the Privy Council.

The following ministers have also at different times been included in the Cabinet; but that body does not usually consist of more than fourteen or fifteen members:—

- The First Lord of the Admiralty.
- The President of the Board of Trade.
- The President of the Poor Law Board
- The Lord Privy Seal.
- The Chief Secretary for Ireland.
- The Postmaster-General.
- The Chancellor of the Duchy of Lancaster.
- The Vice-President of the Committee of Council on Education.

When a Ministry loses the confidence of the majority of the House of Commons, it is customary for it to resign. The Sovereign then intrusts the leader of the opposite party with the formation of a Ministry. But, instead of resigning, a defeated Ministry may advise the Sovereign to dissolve the Parliament and call a new one, in the hope that the constituencies may return a majority of members favourable to its views. This is called an “appeal to the country.”

Each House of Parliament may *adjourn* its meetings from day to day. The Sovereign, advised by the Ministry, *prorogues* Parliament from session to session; and *dissolves* it, when a new Parliament is to be elected. Parliament is also dissolved by the Sovereign's death. The duration of a Parliament is limited by law to seven years; but no Parliament since that law passed (1716) has exceeded six years in duration. During the present reign, the average length of the Parliaments has been under five years.

The British Colonies and Dependencies have their internal affairs administered by Governors and Councils appointed by the Crown, and controlled by the Secretary of State for the Colonies in London, who is a member of the Cabinet. The more populous and older colonies have been placed as far as possible on the footing of self-government, that is to say, there is in each a legislative assembly elected by the people.

The Dominion of Canada may be taken as an example of a self-governed colony. The executive power is vested in the Governor-General, aided by a Privy Council, all the members of which are appointed by the Crown. The legislature consists of two Houses—the Senate, or Upper House, consisting of seventy-seven members appointed by the Governor-General in Council; and the House of Commons, consisting of two hundred members elected by the people for the term of five years. For local purposes, each province has a Lieutenant-Governor and a legislature of its own—the latter generally consisting of two Houses.

The governments of the Australasian colonies are very similar to this, with the exception that the legislative council, or Upper House, is generally appointed by the Crown. In New Zealand, New South Wales, and Queensland, there is in each a Governor and a Cabinet, or executive council, of four or five members, appointed by the Crown; a legislative council of from fifteen to thirty members, also appointed by the Crown; and a legislative assembly, or Lower House, elected by the people. In South Australia, the legislative council is elected by the whole colony voting as one province; in Tasmania and Victoria, it is elected by the upper and moneyed classes, but in other respects the arrangements are the same as in the neighbouring colonies.

India is an example of a dependency still directly under imperial control. Since 1858 the affairs of India have been regulated by the Secretary of State for India and the Council of State, sitting in London, of which he is president. The Council consists of fifteen members,—seven appointed by the Court of Directors of the East India Company, and eight by the Crown.

The executive authority in India is vested in the Governor-General or Viceroy appointed by the Crown, and acting under the orders of the Secretary of State for India. He is assisted in his administrative duties by a supreme council sitting at Calcutta, consisting of five ordinary members appointed by himself, with ten additional members for the purpose of framing laws and regulations. There are also five chief secretaries of state in India, to superintend the different departments of the government.

For administrative purposes, British India is divided into twelve Provinces. Madras and Bombay (including Sindh) are under Governors; Bengal, the North-West Provinces (including Oudh), and the Punjab, are under Lieutenant-Governors; the Central Provinces, Burmah, and Assam, are under Chief Commissioners; while Ajmere, Berar, Coorg, and the Andaman and Nicobar Islands are directly under the Governor-General of India.

Ceylon, which is independent of India as a colony, is an example of a government in which the local and the imperial elements are combined. But the influence of the latter greatly preponderates. The Governor and the executive council of five members are appointed by the Crown. The legislative council contains fifteen members—five of them are the executive council, other four are also officials, and six only are unofficial members.

THE ANIMAL KINGDOM.

THE following table presents a general view, according to the most recent authorities, of the CLASSIFICATION OF ANIMALS:—

TYPE VI.—BACK-BONED ANIMALS (*Vertebrata*—L. *vertebra*, back-bone).—They have a skull and a skeleton, held together by a back-bone.

CLASS I.—Mammals (*Mammalia*—L. *mamma*, breasts), or Sucklers, are warm-blooded, and produce their young in a living state.

ORDERS.	EXAMPLES.	SCIENTIFIC NAMES.*
1. FOUR-HANDED	Monkey, ape	{ <i>Quadrumanus</i> (L. <i>quatuor</i> , four; <i>manus</i> , hand).
2. HAND-WINGED	Bat	{ <i>Cheiroptera</i> (Gr. <i>cheir</i> , hand; <i>ptera</i> , wings).
3. INSECT-EATERS	Hedgehog, mole ..	{ <i>Insectivora</i> (L. <i>insectum</i> , insect; <i>oro</i> , I eat).
4. FLESH-EATERS		{ <i>Carnivora</i> (L. <i>carn</i> , flesh; <i>oro</i> , I devour).
<i>a.</i> Feather-swimmers in sea..	{ Seal, sea-lion, walrus	{ <i>Pinnigrada</i> (L. <i>pinn</i> , a feather; <i>grado</i> , I walk).
<i>b.</i> Sole-walkers.	Bear, badger	{ <i>Plantigrade</i> (L. <i>planus</i> , flat; <i>grado</i> , I walk).
<i>c.</i> Toe-walkers	{ Cat, lion, dog, weasel	{ <i>Digitigrade</i> (L. <i>digitus</i> , finger; <i>grado</i> , I walk).
5. GNAWERS	{ Rat, squirrel, hare, beaver	{ <i>Rodentia</i> (L. <i>rodens</i> , gnawing).
6. SNOUTED ANIMALS	Elephant	{ <i>Proboscidea</i> (L. <i>proboscis</i> , snout).
7. SHREW-FORMED ANIMALS.....	Hyrax	{ <i>Hyracodonta</i> (Gr. <i>hura</i> , a shrew; <i>eidos</i> , form).
8. HOOFED QUADRUPEDS		{ <i>Ungulata</i> (L. <i>ungula</i> , a hoof).
<i>a.</i> Odd-number toed.....	{ Rhinoceros, tapir, horse	{ <i>Perissodactyla</i> (Gr. <i>perissos</i> , uneven; <i>daktulos</i> , finger).
<i>b.</i> Even-number toed.....	{ Hippopotamus, pigs, oxen, sheep, goats, deer	{ <i>Artiodactyla</i> (Gr. <i>artios</i> , even; <i>daktulos</i> , a finger or toe).
9. SWIMMERS.....	Whale, dolphin....	{ <i>Cetacea</i> (Gr. <i>ketos</i> , a whale; or <i>natantia</i> (L. <i>no</i> , natum, I swim).
10. TOOTHLESS, or STUPID	Sloth, ant-eater....	{ <i>Edentata</i> (L. <i>e</i> , without; <i>dens</i> , tooth); <i>bruta</i> (L. <i>brutus</i> , nearly stupid).
11. POUCHED	Kangaroo, opossum	{ <i>Marsupialia</i> (L. <i>marsupium</i> , pouch).

CLASS II.—Birds (*Aves*) are warm-blooded, hatched from eggs, and covered with feathers.

ORDERS.	EXAMPLES.	SCIENTIFIC NAMES.
1. RUNNERS.....	{ Ostrich, cassowary, emu	{ <i>Cursores</i> (L. <i>curro</i> , <i>cursum</i> , I run).
2. SWIMMERS (webbed feet)	{ Swan, gull, petrel, duck	{ <i>Natatores</i> (L. <i>no</i> , <i>natum</i> , I swim).

* The scientific names for the Classes and Orders in the Animal Kingdom are here given, for the convenience of those teachers who may wish to use them.

3. WADERS	{ Stork, heron, snipe, } <i>Grallatores</i> (L. <i>grailæ</i> , stilts, plover..... } from <i>gradior</i> , I walk).
4. SCRATCHERS (in search of food)	{ Turkey, pheasant, } <i>Rasores</i> (L. <i>rado</i> , <i>rasum</i> , I fowl..... } scrape).
5. CLIMBERS	{ Parrot, cuckoo, } <i>Scansores</i> (L. <i>scando</i> , I wood-pecker.... } climb).
6. PERCHERS (including song-birds)	{ Crow, sparrow, } <i>Incessores</i> (L. <i>in</i> , on; <i>sedeo</i> , I lark, thrush.... } sit).
7. BIRDS OF PREY	Eagle, hawk, owl.... <i>Raptores</i> (L. <i>rapio</i> , I seize).

CLASS III.—**Reptiles** (*Reptilia*—L. *repto*, I creep) are cold-blooded, produced from eggs, breathe by lungs, and are sometimes covered with scales or plates.

ORDERS.	EXAMPLES.	SCIENTIFIC NAMES.
1. SNAKES	Serpent, viper.....	<i>Ophidia</i> (Gr. <i>ophis</i> , serpent).
2. SCALE-COVERED	Lizard.....	<i>Sauria</i> (Gr. <i>saura</i> , lizard).
3. BONE-SKINNED	Crocodile.....	<i>Loricata</i> (L. <i>lorica</i> , a cuirass).
4. SHIELDED	Tortoise, turtle....	<i>Chelonia</i> (Gr. <i>chelonē</i> , tortoise).

CLASS IV.—**Amphibians** (*Amphibia*—Gr. *amphi*, both; *bios*, life), or creatures that live both in land and in water, are cold-blooded, and breathe by gills when young, and by lungs when mature.

Examples—Frog, toad, newt.

CLASS V.—**Fishes** (*Pisces*) are cold-blooded, and breathe by gills. They have been divided into six orders.

ORDERS.	EXAMPLES.	SCIENTIFIC NAMES.
1. SMALL-HEARTED	Lancelet.....	<i>Pharyngobranchii</i> (Gr. <i>pharynx</i> , pharynx; <i>brachia</i> , gill).
2. GILL-POUCHED	{ Lampreys, hag- } fishes.....	<i>Marsipobranchii</i> (Gr. <i>marsipos</i> , a pouch; <i>brachia</i> , gill).
3. BONY FISHES.....	{ Cod, salmon, her- } ring.....	<i>Telosteii</i> (Gr. <i>teleios</i> , perfect; <i>osteon</i> , bone).
4. POLISHED-SCALED	{ Bony-pike, stur- } geon.....	<i>Ganoidæi</i> (Gr. <i>ganos</i> , splendour, brightness).
5. SPINE-SCALED FISHES.....	{ Sharks, rays, saw- } fishes.....	<i>Elasmobranchii</i> (Gr. <i>elasma</i> , a plate; <i>brachia</i> , gill).
6. FISH WITH GILLS AND LUNGS	Australian mud- } fish.....	<i>Dipnoi</i> (Gr. <i>dis</i> , twice; <i>pnoë</i> , breath).

TYPE V.—SOFT-BODIED ANIMALS.

EXAMPLES	SCIENTIFIC NAMES.
Cuttle-fish, snail, limpet, oyster, scallop.....	<i>Mollusca</i> (L. <i>mollis</i> , soft).

TYPE IV.—BODY-RINGED ANIMALS.

Worms, leeches, crabs, lobsters, spiders, insects.... *Annelida* (L. *annulus*, a little ring).

TYPE III.—SPINE-SKINNED ANIMALS.

Sea-urchins, star-fish..... *Echinodermata* (Gr. *echinos*, a hedgehog).

TYPE II.—PLANT-LIKE ANIMALS.

Corals, sea-pen, jelly-fish..... *Zoophyta* (Gr. *zōon*, an animal; *phuton*, a plant).

TYPE I.—HUMBLEST ANIMALS.

Mostly microscopic..... *Protozoa* (Gr. *prōtos*, first; *zōon*, animal).

BIOGRAPHICAL APPENDIX.

SHORT LIVES OF THE LEADING AUTHORS AND IMPORTANT PERSONAGES
REFERRED TO IN THE PRECEDING LESSONS.

In the text the names are indicated by a superior *b*: thus, ADDISON.^(b)

Addison, Joseph, essayist and poet, was born in Wiltshire in 1672. His fame rests chiefly on his weekly papers in the *Spectator*, *Tatler*, and *Guardian*. His chief poem is the *Letter from Italy*. His prose style is remarkable for grace, purity, and quaint humour. He became a Secretary of State in 1717, and died at Holland House, London, in 1719.

Æschylus, the father of the Greek drama, was born at Athens in 525 B.C. He was wounded at Marathon (490 B.C.), and fought at Salamis (480 B.C.). He was the first to introduce on the stage more actors than one, and to give them appropriate dresses. Of ninety dramas produced by him, only seven have come down to us. In 468 B.C. Sophocles defeated him in the public competition of dramas, and he retired to Sicily, where he died in 456 B.C.

Alexander the Great, King of Macedonia, was born in 356 B.C., and trained by Aristotle, the great philosopher. On the death of his father Philip, 336 B.C., he succeeded him, subdued the hostile Greeks, and was made Generalissimo of Greece. Then began (334 B.C.) his great career of conquest. He subdued Phœnicia, Syria, Egypt, Persia, and part of India. He died of fever at Babylon in 323 B.C.

Anac'reon, a celebrated Greek lyrical poet, was born at Teos in Asia Minor, about 563 B.C. The *Odes* ascribed to him are possessed of great sweetness and elegance. Much of what he wrote has certainly been lost, and the genuineness of the works which bear his name has been doubted. He lived a dissipated and intemperate life, chiefly at Athens and Samos (an island in the Ægean Sea). He died in 478 B.C.

Aristides, a celebrated Athenian, surnamed "The Just," from his purity in the discharge of public offices. He fought with signal bravery at Marathon (490 B.C.); and though he had charge of the spoils, he took nothing for himself. Themistocles was his political rival; and, gaining the ascendancy in Athens, he banished Aristides by ostracism—that is, by a public vote of censure. He was afterwards recalled, however, and rendered great service

to Themistocles at the Battle of Salamis (480 B.C.). He died in obscurity in 467 B.C.; but he received a splendid funeral, and his family were provided for by the state.

Aristotle, the greatest of Greek philosophers, was born at Stagira, 384 B.C.,—hence called "The Stagirite." He studied with great diligence under Plato. He was tutor to Alexander the Great, and afterwards taught philosophy at Athens with great success. He produced a great number of learned works on rhetoric, politics, ethics, poetry, physics, mathematics, logic, and metaphysics. He died in 323 B.C.

Aytoun, William Edmondstone, a romantic poet of the school of Scott, was born at Edinburgh in 1813. He was for many years a regular contributor to *Blackwood's Magazine*. His papers include many humorous tales and sketches, but his fame rests chiefly on his *Lays of the Scottish Cavaliers*. For many years he was Professor of Rhetoric in the University of Edinburgh. He died in 1865.

Bacon, Francis, Lord, the eminent statesman, and the father of experimental philosophy, was born at London in 1561. He was educated at Cambridge, and after a brief sojourn in France, practised as a lawyer at Gray's Inn. He entered Parliament in 1592. In 1604 he published his *Advancement of Learning*. In 1618 he became Lord Chancellor. The greatest of all his works was published while he held this high office, in 1620. Shortly afterwards he was accused of bribery and corruption, was tried, and sentenced to pay a heavy fine. He confessed his guilt, but threw the blame of his acts partly on the prevailing customs of the law courts, partly on his servants. He was afterwards pardoned, but spent the remainder of his life in retirement. He died in 1626.

Belzoni, a celebrated explorer of Egyptian antiquities. He made many important discoveries, and sent to London some of the most valuable Egyptian relics in the British Museum. Born at Padua (Italy), 1774; died in Africa, 1823.

Blake, Admiral Robert, one of England's most famous and daring seamen. was born at Bridgewater (Somerset) in

1598. In 1617 he took his degree at Oxford. In 1640 he sat for Bridgewater in the Long Parliament; and on the outbreak of the civil war, he sided with the Parliamentarians. He was appointed to the command of the fleet in 1649. One of his greatest achievements was the defeat of the Dutch fleet of forty-five sail under Van Tromp, with only twenty-three ships, in the Downs, 1652. He died on board his ship in 1657.

Brooke, Henry, a writer of dramas and novels, was born in Ireland in 1706. He acquired some celebrity by the opposition of the government to the performance of his *Gustavus Vasa*, on account of the boldness of its language. He is best known as the author of an excellent novel entitled *The Fool of Quality*. He died in 1783.

Browning, Robert, one of the greatest of living poets, was born at Camberwell, in 1812. He published *Paracelsus* in 1836; and in the following year *Strafford*, a tragedy. Neither this drama nor *The Blot on the Scutcheon*, produced in 1843, proved successful on the stage. Yet Browning possesses undoubted dramatic genius, and a wonderful power of condensed expression. This latter gives an air of obscurity to his writings which repels many readers. He has also written *Pippa Passes*; *Dramatic Lyrics*; *Men and Women*; *The Ring and the Book*, and other poems.

Buffon (*Boof-fong*), **George Louis**, a great French naturalist, and author of a colossal work on "Natural History, General and Particular," in thirty-six quarto volumes. Its publication covered thirty-nine years. Born 1707; died 1788.

Bunyan, John, author of *The Pilgrim's Progress*, and other works, was born at Elstow (Bedfordshire) in 1628. He began life as a travelling tinker,—an ignorant, thoughtless, and, by his own account, profane youth. A remarkable series of incidents led to his conversion. In 1656 he began to preach in Bedfordshire. After the Restoration (1660) he was, on account of his preaching, shut up in Bedford gaol for twelve years, during which he wrote his most famous works. He continued to preach and to teach after his release, and died at London in 1688.

Buonaparte, Napoleon, the greatest military genius of modern times, was born at Ajaccio in Corsica in 1769. His brilliant career began in 1793, when he expelled the English from Toulon. He carried on the wars of the French Revolution, which dis-

turbed Europe for twenty years. In the course of them he overran Italy, humbled Austria and Prussia, subdued the Netherlands and Spain, and invaded Russia. In 1804 he became Emperor of the French. In 1814 he abdicated, and retired to Elba. In 1815 he returned; but he was defeated by Wellington at Waterloo. He was banished to St. Helena, and died there in 1821.

Burns, Robert, the national poet of Scotland, was born in Ayrshire in 1759. He struggled through life as ploughman, small farmer, and exciseman; but he was never successful; and sickness, debt, and the dregs of dissipation brought him to an early grave in 1796. He was a true poet of nature, and a very prince of lyric poets. His best works are his *Scottish Songs*, his lines *To a Mountain Daisy*, and *To a Mouse*; *Tum o' Shanter*, and *The Cottar's Saturday Night*.

Byron, George Gordon, Lord, a great English poet of the romantic school, was born at London in 1788. He led a restless and wandering life, chiefly abroad after 1810. The publication of *Childe Harold's Pilgrimage*, his greatest poem, began in 1812. He also wrote *Manfred* (a tragedy); and Turkish tales in verse, as *The Corsair*; *The Giaour*. In 1823 he sailed for Greece, to aid the Greeks in their war of independence, and died there in 1824.

Callimachus, an Athenian general, who commanded the right wing at the Battle of Marathon, and, after performing the most signal feats of valour, fell fighting in the field;—490 B.C.

Camby'ses, King of Persia, was son of Cyrus the Great, whom he succeeded, 529 B.C. He conquered Egypt in 525 B.C., when the ancient dynasty of the Pharaohs came to an end. He committed dreadful excesses in Egypt, destroyed many of its finest monuments, and made the country a waste.

Campbell, Thomas, author of *The Pleasures of Hope*, and other elegant poems, was born at Glasgow in 1777. After 1803 he lived in London, having adopted literature as a profession. His fame depends chiefly upon his patriotic lyrics—*Ye Mariners of England*, *The Battle of the Baltic*, which are full of fire, fervour, and poetical feeling. He died in 1844.

Charlemagne, the great founder of the Germanic-Roman Empire, was born in Bavaria in 742 A.D. When his father died in 768, his dominions were divided between

Charlemagne and his brother; but the latter died in 771, and then Charlemagne's great career began. He conquered Lombardy (774), took a large portion of Spain from the Saracens (778), and subdued the Saxons in the north (804). In the midst of his triumphs, the Pope crowned him Emperor of the West at Rome (800). He died at Aix-la-Chapelle in 814.

Charles V., Emperor of Germany, who was also Charles I. of Spain, was born in 1500 A.D. From his father he inherited Austria and Burgundy, and from his mother nearly the whole of Spain. He was elected emperor in 1519. The earlier part of his reign was occupied by wars with Francis I. of France, in which he was generally successful. He spent the last few years of his life in a Spanish monastery, and died there in 1558.

Cleopatra, Queen of Egypt, and last of the Greek dynasty there, was celebrated for her beauty and her crimes. She fascinated Julius Cæsar, and induced him to set her on the throne from which her brother had driven her. She lived at Rome till Cæsar's assassination, when she returned to Egypt. Antony charged her with helping Brutus, and summoned her before him; but she completely captivated him, and he married her. In the war which ensued between Augustus and Antony, she abandoned the latter, who was overthrown. Rather than grace a Roman triumph, she poisoned herself by applying an asp to her breast or arm. 30 B.C.

Clyde, Colin Campbell, Lord, a distinguished British general, was a native of Glasgow. He served in the Peninsular War. He achieved great distinction and popularity by his gallant conduct during the Crimean War, especially in the battles of the Alma and Balaklava. In 1857 he was sent to India to suppress the Mutiny; in which, by his wise and vigorous measures, he was completely successful. He was born in 1792, and died in 1863.

Coleridge, Samuel Taylor, one of the "Lake Poets" (the others were Wordsworth and Southey), was born in Devonshire in 1772. His chief poems are *The Ancient Mariner*, and *Christabel* (a fragment). He also wrote a series of profound *Lectures on Shakespeare*; indeed, he was greater as a critic than as an original poet. Died 1834.

Collingwood, Admiral Lord, Nelson's second in command at Trafalgar, was born in 1760. He commanded the *Excellent* at

Cape St. Vincent (1797). After Nelson received his death wound, Collingwood took command of the fleet and completed the victory. He died on board his ship the *Ville de Paris* in 1810.

Columbus, Christopher, the discoverer of the New World, was born at Genoa in 1445. After soliciting assistance in vain from the courts of Genoa and Portugal, he obtained three vessels from Ferdinand and Isabel of Spain. He discovered San Salvador in 1492, and the mainland of South America in 1498. He died at Valladolid, poor and neglected, in 1506.

Constantine, Flavius Valerius, called the Great, was born in 274 A.D. When going to fight one of his rivals, the vision of a cross appeared to him in the sky, with a Greek legend signifying "In this conquer." He became a Christian after this, and always used the cross as his standard. He encouraged Sabbath observance, rebuilt Christian churches, and called the General Council of the Church at Nicæa (in Bithynia) in 325, when the Nicene Creed was adopted. His murder of Crispus, his son, in a fit of jealousy, casts a stain on his memory. He founded Constantinople in 328, and died in 337.

Cowley, Abraham, poet and essayist, was born at London in 1618. He was a sparkling wit-poet, and in his own day was very popular. His odes, in imitation of classical poets — Pindar, Horace, and Anacreon—are his best productions. He died in 1667.

Cowper, William, an eminent English poet, author of *The Task*; *John Gilpin*, and other favourite English poems, was born in Hertfordshire in 1731. He contributed nearly seventy hymns to Newton's *Olney* collection. He suffered during the greater part of his life from fits of insanity. Southey, his biographer, calls him "the best of English letter-writers." He died in 1800.

Cyrus the Great, King of Persia, was also son-in-law of the King of Media. In 550 B.C. he deposed his father-in-law and restored the independence of Persia, which had long been under the domination of Media. He conquered Croesus, King of Lydia (west of Asia Minor), famous for his great riches; overran Assyria; and took Babylon, by turning aside the course of the Euphrates. His great conquests were completed about 536 B.C. He was afterwards taken prisoner in a war with the Scythians, and put to death, 529 B.C.

Di'do was a Phœnician queen, who, disconsolate for the death of her husband, sailed to Africa and founded Carthage. Rather than marry the King of Mauritania (a neighbouring state) she stabbed herself on the top of a funeral pile which she had caused to be erected. 953 B.C.

Emerson, Ralph Waldo, a distinguished American essayist and journalist, was born at Boston in 1803. He has been very successful as a lecturer both in America and in England; and most of his writings were originally produced as lectures—for example, his *New England Reformers*, and *Representative Men*. His style is original and vigorous. He has also published a volume of poems.

Epicurus, the founder of the Epicurean philosophy, was born in 342 B.C. He lived chiefly at Athens. He led a strictly moral life, and taught that while pleasure was the highest good, virtue was the essence of pleasure. His system was grossly perverted by his followers. He died in 270 B.C.

Ferdinand V., King of Aragon and Sicily, and the real founder of the greatness of Spain, was born in 1452 A.D. He married Isabel of Castile and Leon, and so united the greater part of Spain in one government. He conquered Granada, and abolished the kingdom of the Moors in Spain. He recovered Navarre from France; and he added Naples to his Italian possessions. He was induced to equip Columbus for his voyage of discovery, but he was ungrateful to him afterwards. He died in 1516, and was buried in the Alhambra.

Franklin, Benjamin, an American patriot and distinguished philosopher, was born at Boston in 1706. He began life as a printer; but he soon made for himself a name as a philanthropist, both by his writings and by his personal labours. He began his electrical experiments in 1742. His greatest practical invention was the lightning conductor. He took a leading part in establishing the independence of the United States, and in framing their Constitution. He died in 1790.

Gama, Vasco de, the discoverer of the sea-route to the East Indies, was a native of Portugal. In 1497 he doubled the Cape of Good Hope, and sailing across the Indian Ocean, he arrived at Calicut in 1498. In 1524 he became viceroy of Portuguese India; but died in 1525. His exploits are celebrated in the *Lusiad*, the national epic of Portugal, written by Camoens about 1569.

Han'ni'al, the great Carthaginian hero, was born in 247 B.C., and died in 183 B.C. Scipio, who defeated him at Zama, called him the greatest general that ever lived. He gave the second rank to Pyrrhus of Epirus, and placed himself third.

Harvey, William, a celebrated physician, who discovered the circulation of the blood, and published his discovery in a treatise in 1628. Born 1578; died 1657.

Has'drubal, a distinguished Carthaginian general, was the son of Hamilcar, and younger brother of Hannibal. He attempted to hold Spain against the Romans. When he failed, he made a dash into Italy to reinforce Hannibal; but before a junction could be effected, he was defeated and slain at the Metaurus, 207 B.C.

Havelock, Sir Henry, a gallant British soldier, who was as distinguished for his simple Christian earnestness as for his bravery. He was born in 1795. After 1823, he spent most of his life in India. He is chiefly famous for the great decision and courage with which he took steps to suppress the Indian Mutiny in 1857. In two months, he gained nine victories and relieved Lucknow; but died there after he had been joined by Sir Colin Campbell.

Hemans, Felicia Dorothea, a distinguished English poetess, was born at Liverpool in 1793. Her father was a merchant named Browne. After the death of her husband, Captain Hemans, in Italy, she devoted her life to literature. She had published a volume of poetry when in her fifteenth year. Her finest poem is the *Forest Sanctuary*; but she is best known by her sweet and tender lyrics, such as *The Graves of a Household*; *The Voice of Spring*, &c. She died at Dublin in 1835.

Herodotus, a celebrated Greek historian, called "The Father of History." He was born B.C. 484. His great work treats of the internal history of Greece; but it contains sketches of the history of the Medes, Persians, and Egyptians. He travelled extensively in Europe, Asia, and Africa, collecting materials for his work. He died about 408 B.C.

Hó'mer, the greatest of the Greek poets; but his birth-place, era, and indeed his individual existence, have been keenly disputed by scholars. He is the reputed author of the *Iliad* and the *Odyssey*, the most perfect epic poems in the world. The former recounts the story of the siege of Troy; the latter narrates the wanderings and adventures of Odysseus after Troy

was destroyed. Homer is said to have flourished about 900 B.C.

Hood, Thomas, a celebrated humorous and pathetic poet, was born at London in 1798. The titles of some of his collected works, as *Whims and Oddities*, and *Whimsicalities*, indicate the bent of his genius; but he touched a deeper chord in such tragic poems as *The Song of the Shirt*; *The Bridge of Sighs*, and *The Dream of Eugene Aram*. He died in 1845. His epitaph is, "He sang the Song of the Shirt."

Horace, a celebrated Latin poet, was born in 65 B.C. He was educated at Rome and at Athens. Brutus made him a tribune; but at the Battle of Philippi he fled—for which his estate was confiscated. He was afterwards taken into favour by Augustus; and Mæcenæ gave him a farm, where he spent the close of his life. His poems are lyrical, satirical, and philosophical, consisting mainly of *odes*, satires, and epistles. He died in 8 B.C.

Hunt, James Henry Leigh, an English poet and essayist, was born in 1784. At school he was the companion of Charles Lamb and S. T. Coleridge. He and his brother John were, in 1811, sentenced to a fine and two years' imprisonment for an alleged libel on the Prince Regent. This gained him the sympathy of Byron, Moore, Shelley, Keats, and other men of letters, who often visited him in his cell. His chief works are, *The Story of Rimini*, in verse; *A Legend of Florence*, a drama; and prose *Essays, Sketches, and Memoirs*, characterized by refined literary taste. He died in 1859.

Isabel, Queen of Castile and Leon, was born in 1450. In 1469 she married Ferdinand of Aragon; a union which led to the consolidation of the Spanish monarchy. It was chiefly through the favour and perseverance of Isabel that Columbus was equipped for his voyage of discovery; for she offered to pawn her crown jewels to pay for his outfit. She died in 1504, and was buried in the Alhambra.

Johnson, Dr. Samuel, a learned English critic, was born at Lichfield (Staffordshire) in 1709. He spent some time as usher in a school; but after 1737 he devoted himself to literature, and resided chiefly in London, where he was regarded as the literary dictator of his time. He wrote, *Lives of the Poets*; *Rasselas*, a romance; *London*, a poem; and a series of weekly essays entitled *The Rambler*. His famous *Dictionary* was based on an earlier work by N. Bailey (1724). His *Life*, by James Bos-

well, is the best biography in the English language. Died in 1784.

Josephus, Flavius, a distinguished Jewish historian, was born at Jerusalem in 37 A.D. He completed his education at Rome. He held a town in Syria against Vespasian for seven weeks. He was taken into favour by Vespasian, and accompanied Titus to the siege of Jerusalem. He wrote a *History of the Wars of the Jews*; *Antiquities of the Jews*; and his own life. He died at Rome about the beginning of the second century.

Ju'not, General, a distinguished general of the times of the French Revolution and Empire, was born in 1771. Having entered the army as a volunteer, he attracted the notice of Buonaparte, after which his rise was rapid. He served in Egypt, Portugal, Spain, and Russia. Portugal was the scene of his greatest success and his greatest failure. He rapidly overran the country in 1807, and established himself at Lisbon as governor. Next year he was defeated by Wellington at Vimiera, and had to sign the Convention of Cintra, by which his conquest was abandoned. He died in 1813.

Kingsley, Rev. Charles, a distinguished novelist and essayist, born in Devonshire in 1819; died 1875. He has for many years held the living of Eversley in Hampshire. From 1859 till 1870 he was Professor of Modern History at Cambridge. He was the author of *Alton Locke*, *Tailor and Poet*, a social and political novel; of *Westward Ho!* and *Hypatia*; also of *Glaucus*, or *the Wonders of the Shore*; and of several volumes of *Sermons*.

Landon, Letitia Elizabeth, an English poetess, was born in 1802. She is generally known as L. E. L., the signature under which she contributed her poems to the *Literary Gazette*. Her chief poems are *The Improvisatrice*, *The Troubadour*, and *The Golden Violet*. In 1838 she married Mr. Maclean, Governor of Cape Coast Castle, and accompanied him to Africa. A few months after her arrival, she accidentally took an overdose of prussic acid, and was found lying dead on her bed-room floor, 1839.

Livy, a celebrated Roman historian. His *History of Rome* began with the foundation of the city, and ended with the year 9 B.C. Much of it is lost. Much of what survives had a legendary origin, and is more admired for the beauty of its style than trusted for the accuracy of its statements. Livy was born 59 B.C.; died 17 A.D.

Longfellow, Henry Wadsworth, the most popular of American poets, both in and beyond America, was born in 1807. In 1835 he was appointed Professor of Modern Languages and Belles-Lettres at Harvard College, Cambridge, United States. He was a very voluminous writer. The chief of his longer poems are, *Evangeline*; *Hiawatha*, and *The Courtship of Miles Standish*. Amongst his minor poems, the chief favourites are, *A Psalm of Life*; *Excelsior*, *The Village Blacksmith*, and *The Wreck of the Hesperus*. He also wrote *The Golden Legend*, a medieval mystery play, and several prose romances. He died in 1882.

Lytton, Edward Lytton Bulwer, Baron, a celebrated English novelist and poet, was born in 1805. He produced a series of the most brilliant novels in the English language, including *Pelham*; *The Last Days of Pompeii*; *The Caxtons*, &c. He also wrote *The Lady of Lyons*, the most popular play of modern times. He was made a baronet in 1835, and was raised to the peerage as Baron Lytton in 1866. He died in 1873.

Macaulay, Thomas Babington, Lord, historian and essayist, born in Leicester-square in 1800; wrote a series of brilliant *Essays*, chiefly historical and political, in the "Edinburgh Review;" wrote also a *History of England*, which was left unfinished at his death; and *Lays of Ancient Rome*. For two and a half years he held a legal appointment in India. From 1839 till 1847 he represented Edinburgh in the House of Commons. He was made a peer in 1857, and died in 1859.

Mackintosh, Sir James, an eminent lawyer and historical writer, was born in Inverness-shire in 1765. His defence of the French Revolution against Burke first brought him into public notice. He was for a time a judge in India, then Professor of Law in Haileybury College. He projected a *History of England*, but only a fragment of it was completed, which was published after his death, which took place in 1832.

Maury, Matthew, a distinguished American astronomer and scientific writer, born 1806; author of *The Physical Geography of the Sea*, and other works. Captain Maury died in 1873.

Miltiades, a celebrated general who commanded the Athenians in the Battle of Marathon 490 B.C. Afterwards he had the command of a naval squadron, but his expedition was unsuccessful, and he returned

wounded to Athens. He was charged with deception by a political foe, and was fined. Being unable to pay the fine, he went to prison, and there died of his wound, 490 B.C.

Milton, John, the greatest of English epic poets, was born in 1608. In 1649, he became Latin (Foreign) Secretary to the Commonwealth. Besides *Paradise Lost*, he wrote *Paradise Regained*; *Comus*; *Samson Agonistes*, and *Lycidas*, and several great prose works on the liberty of the Press, and on political and religious freedom. He was blind during his later days, and dictated his works to his daughters. He died in 1674.

Mohammed, the founder of the Mohammedan or Mussulman religion, was born in 570 A.D. of a noble Arabian family. He acted as camel-driver for his uncle till he was twenty-five. At forty he proclaimed himself a prophet at Mecca. A plot having been formed against him, he fled from Mecca to Medina, 16th July 622 (the Hegira, or flight of Mohammed, from which the Mohammedans reckon their time). He then spread his religion by means of the sword. His opinions gradually spread over Arabia, Syria, Persia, North Africa, and Spain. The chief strongholds of Mohammedanism now are the Turkish Empire and Persia. Mohammed died by poison, said to have been administered by a Jewess to test his divine character, 632 A.D.

Montgomery, Rev. Robert, a popular religious poet of the present century, was born at Bath in 1807. His chief works are, *Satan*; *A Vision of Heaven*, and *The Messiah*, a poem in six books. He did not begin to study for the Church until after several of his poems had appeared. He was very popular as a preacher, and died at Brighton in 1855.

Moore, Sir John, a distinguished British general, was born in 1761, and entered the army in his fifteenth year. He served with great distinction in the West Indies and in Egypt; but the achievement on which his fame rests was his skilful retreat, when commander-in-chief in Spain, with the whole of his army towards Coruña, with Soult on his rear. He was killed in the battle which had to be fought to cover the embarkation, 1809.

Moore, Thomas, the most popular of Irish poets, was born at Dublin in 1779. He wrote the *Life of Byron*. His most famous poems are his *Irish Melodies*, and *Lalla Rookh* (Tulip-Cheek), an Eastern romance. He died in 1852.

Mortier, Marshal, Duke of Treviso, a distinguished French general, was born in 1768. He entered the army as a volunteer in 1791. He served with distinction in Germany and Spain; and in the expedition to Russia he exerted himself to save the remnants of the grand army. Along with seventeen others who surrounded Louis Philippe, he was killed by Fieschi's infernal machine in 1835.

Motley, John Lothrop, an eminent American historian, born in Massachusetts in 1814; died 1877. He completed his education in Germany, and spent some years in travelling in European countries. He was secretary of the American legation at St. Petersburg during the years 1841-42. In 1869, he became American ambassador to Great Britain. He published *The Rise of the Dutch Republic* in 1856, and the first portion of the *History of the United Netherlands* in 1860. His style is clear, forcible, and picturesque.

Murat, Joachim, a celebrated French marshal, and King of the Two Sicilies, was born in 1767. His father was an inn-keeper, and he for some time had charge of the inn stables. The outbreak of the French Revolution gave scope to his impetuous nature. Winning the favour of Buonaparte, his promotion was very rapid; and his marriage with Buonaparte's sister made their fortunes identical. He was made successively a marshal, a grand duke, and a prince of the empire. In 1808 he was proclaimed King of the Two Sicilies, and reigned till 1815, when the Austrians defeated him, and drove him from his throne. In an attempt to recover it, he was taken in Calabria, and mercilessly shot: 1815.

Napier, Sir William, a distinguished general and military historian, was born in 1785. His brother was the famous Sir Charles James Napier, the conqueror of Scinde; and his cousin, Sir Charles John Napier, was a distinguished admiral. He served under Sir John Moore at Coruña, and afterwards passed through the whole of the Peninsular War; of which on his return to England, he became the historian. He died in 1860.

Nebuchadnezzar, one of the most famous kings of Chaldea, or of Babylon, its capital. He began to reign about 600 B.C., and reigned forty years. He conquered Syria, Judea, Phenicia, and Egypt, destroying Jerusalem, and carrying the people captive to Babylon. He built the famous

hanging gardens at Babylon; and a huge temple, which some suppose to occupy the site of the Tower of Babel.

Nelson, Viscount Horatio, "the greatest sailor since the world began," was born in Norfolkshire in 1758. He entered the navy in his twelfth year; and three years later he sailed in an expedition to the Arctic Ocean. In 1793 he sailed to the Mediterranean as commander of the *Agamemnon*. He lost his right eye in 1794, and his right arm in 1798. His great victories of St. Vincent (1797), the Nile (1798), Copenhagen (1801), and Trafalgar (1805), shattered the naval powers of Europe, and raised the glory of England to its highest pitch. He was killed on board the *Victory*, at Trafalgar, in 1805.

Nero, Claudius Cæsar, the most infamous of the Roman emperors, was born in 37 A.D. He caused his own mother to be assassinated, and deluged Rome with the blood of her best citizens. He put his wife to death, and persecuted the Christians. His cruelties were accompanied with a spirit of disgusting levity. He caused Rome to be set on fire, and looked on the scene from a high tower, where he amused himself by singing to his lyre. He threw the blame on the Christians, to punish whom he held chariot races in his garden by night, the torches being Christian martyrs, whose clothes were smeared with pitch and set on fire. He was dethroned and put to death in 68.

Norton, Hon. Mrs. Caroline, an English poetess, born 1808, died 1877. She was a daughter of Thomas Sheridan, son of Richard Brinsley Sheridan, the celebrated dramatist, actor, and orator. She began her career of authorship in 1829, and she published many narrative poems, songs, and ballads of great merit. Her principal poems are, *Rosalie*; *The Undying One*; *The Child of the Islands*, and *The Lady of Garaye*.

Outram, Sir James, a distinguished Anglo-Indian general, was born in 1802, and went to India in 1819. He served in various capacities, both civil and military, and earned a high character for chivalry and promptitude. He took an active and heroic part in suppressing the Mutiny in 1857. He died in 1863.

Paul, the great "apostle of the Gentiles," also called by his Hebrew name Saul, was born at Tarsus in Cilicia, and educated at Jerusalem in the school of Gamaliel; under whom he became learned in the law as well

as in Greek literature. His conversion took place in 36 A.D., while he was engaged in a bitter crusade against Christianity. He made three great missionary tours, in the second of which he preached at Athens and Corinth. After two years' imprisonment at Jerusalem and Caesarea, he appealed to Cæsar, and was sent to Rome. There he was imprisoned for two years more, tried, and released. Arrested on a new charge, three years later, he was tried a second time, condemned, and beheaded at Rome, 68 A.D.

Plato, a celebrated Greek philosopher, was born at Athens 429 B.C. About 409 he became a pupil of Socrates (q.v.); on whose death he visited different countries in search of knowledge.—Egypt, Italy, and Sicily.* Having offended Dionysius, the tyrant of Syracuse, Plato was sold as a slave; but in a short time his master set him free. He devoted the remainder of his life to philosophy at Athens, where he died in 347 B.C. He taught a pure and noble morality, and he believed in the immortality of the soul.

Poe, Edgar Allan, an American poet, born 1811, was the son of a strolling player, on whose death he was adopted by Mr. Allen, a rich merchant. He led an irregular, dissipated life, and at last died from the effects of his intemperance, in 1849. He was one of the most original of American writers.

Pope, Alexander, the chief English poet of the artificial school, was born in 1688. His father was a London linen-draper. He began to write verse when very young, modelling his style on that of Dryden, whom he surpassed in delicate finish, point and grace of diction, as well as in smoothness of versification. His chief works are, *Essay on Criticism*; *Essay on Man*; *Rape of the Lock*; translation of *Homer; The Dunciad*, a satire. The success of his *Homer* enabled him in 1715 to purchase a villa at Twickenham, where he prided himself on the number of people of rank and learning who gathered around him. He died there in 1744.

Ritter, Karl, a distinguished German geographer, born 1779, appointed Professor of Geography in Berlin in 1820. He wrote *Geography in Relation to the Character and History of Mankind; A Glance at Palestine and its Christian Population*, and other works. Died 1859.

Robinson, Rev. Dr. Edward, a learned American divine and a great Oriental

scholar and traveller. He was born in Connecticut, U.S., in 1794. He studied Oriental literature in France and Germany. He then spent some years in the Holy Land, and in 1841 published his great work, *Biblical Researches in Palestine, Mount Sinai, and Arabia Petraea*. He became Professor of Biblical Literature in the Theological Seminary of New York, and died in 1863.

Rogers, Samuel, an eminent English poet, was born in 1762. He was a London banker, as his father had been; and in his later years he retired from business, and led a life of affluence and ease, in the society of the celebrated men and women of his time. His poems, chief of which are, *The Pleasures of Memory* (1792), and *Italy* (1836), are remarkable for classic and graceful beauty. He died in 1855.

Russell, William Howard, the most celebrated of newspaper special correspondents, was born at Dublin in 1821. In 1842 he went to London to seek employment on the Press, and was taken on the staff of the *Times* in the following year. His brilliant letters to the *Times* during the Crimean War first made him famous (1854-55). In 1857 he went to India, and chronicled the suppression of the Mutiny. He accompanied the Austrian army in the "Seven Weeks' War" in 1866, and the Prussian army in the "Franco-Prussian War" in 1870-71.

Saladin, a famous Sultan of Egypt and Syria, whose capture of Jerusalem in 1187 led to the third Crusade, in which Richard the Lion-heart of England took part. He died at Damascus in 1192 A.D.

Scipio, Publius, one of the greatest generals of ancient times, was born at Rome in 235 B.C. At the age of seventeen, he saved his father's life at the Battle of the Ticinus. He took Spain from the Carthaginians, and then crossed into Africa, where he put an end to the Second Punic War by his victory at Zama, 202 B.C. For these successes he obtained a triumph, and the surname of Africanus. He died in 183 B.C.

Scott, Sir Walter, the greatest of English romantic poets and novelists, was born at Edinburgh in 1771. He was a lawyer by profession, but his life chiefly occupied with literature. His first poetical romance, *The Lay of the Last Minstrel*, appeared in 1805. It was followed by *Marmion* and *The Lady of the Lake*. He began the *Waverley* novels in 1814, and

continued to write till 1831, when his health broke down. He died in 1832.

Shakespeare, William, the greatest of dramatic poets, was born at Stratford-on-Avon (Warwickshire) in 1564. From 1586 till 1613, he lived in London as an actor, play-wright, and poet. Besides many non-dramatic poems, he wrote during those years at least thirty-six original dramas, including such master-pieces as *Hamlet*; *Macbeth*; *King Lear*; *A Midsummer-Night's Dream*; *Romeo and Juliet*, and *The Tempest*. In 1613 he retired to Stratford, where he died in 1616.

Shelley, Percy Bysshe, an eminent English poet, was born in Sussex in 1792. His father was a baronet. His fine poetical genius was marred by his openly-flaunted infidelity. His chief works are, *Queen Mab*; *Alastor*, and *Prometheus Unbound*; but he is better known by his minor poems—*The Skylark*; *The Cloud*, and *The Sensitive Plant*. He was drowned in the Gulf of Spezzia (Italy) in 1822.

Smeaton, John, an eminent engineer, born near Leeds in 1724. He was the first man in England to make engineering a distinct profession. Besides building Eddystone Lighthouse, he completed Ram-gate Harbour, and planned the Forth and Clyde Canal. He also published interesting accounts of his greatest works. Died in 1792.

Smith, Sydney, an eminent English essayist, and a clergyman of the Church of England. It was at his suggestion that the *Edinburgh Review* was founded. He edited the first number, and was a constant contributor to its pages during the remainder of his life. He had a great reputation as a wit. His style is sparkling and forcible. Besides his essays in the *Edinburgh*, he wrote *Peter Plymley's Letters*, and *Sketches of Moral Philosophy*. Born in Essex, 1771; died 1845.

Socrates, a celebrated Greek philosopher, was born at Athens, 468 B.C. He was for a time a sculptor with his father, then served in the army, where he on one occasion saved the lives of Xenophon and Alcibiades. Having made philosophy his study, he taught the youth of Athens in the grove of Academus (hence called *The Academy*). He was accused of corrupting them, and of ridiculing the gods; and was condemned to death. He drank the hemlock juice with composure, and died peacefully, 399 B.C.

Solyman I., surnamed "The Magnificent," was born in 1493, and succeeded his

father as sultan in 1520. He was great both as a warrior and as a legislator; he was also a poet, and the friend of literature and the arts. In 1529 he laid siege to Vienna, but was forced to retire with the loss of 120,000 men. He died in Hungary in 1566.

Soult, Marshal Nicolas, a great French general, was born in 1769. He was the son of a notary, and entered the army as a private soldier; in which position he remained for several years. When his great abilities were discovered, he rose rapidly. After the Battle of Austerlitz, Napoleon called him one of the greatest living strategists. He was the great opponent of Wellington in the Peninsular War. After Waterloo, he was banished from France, but was permitted to return in 1819. Louis Philippe made him Marshal-General of France, and sent him as his representative to the coronation of Queen Victoria. Soult died in 1851.

Southey, Robert, an eminent English poet and general writer, was born at Bristol in 1774. At first he studied for the law, but in 1804 he adopted literature as his profession, and went to live near Keswick. He was thus associated with Wordsworth and Coleridge in the "Lake School" of poetry. He was the author of more than one hundred volumes of poetry, history, travels, &c. Chief poems: *Thalaba*, *the Destroyer*, and *The Curse of Kehama*. Prose works: *Life of Nelson*; *The Doctor*; and histories of *The Peninsular War*, *Brazil*, and *Portugal*. He was poet laureate from 1813 till his death in 1843.

Tennent, Sir James Emerson, a modern statesman and writer, was born at Belfast in 1804. He assumed the name Tennent on his marriage to the daughter and heiress of William Tennent, a wealthy banker of Belfast. He represented Belfast in the House of Commons from 1832 till 1845. He was then appointed secretary to the Government of Ceylon, and soon afterwards lieutenant-governor of the colony. He reentered Parliament on his return to England, in 1852. His *Ceylon* was published in 1859, and became one of the most popular books of the day. It is particularly valuable for its observations upon natural history. He died in 1869.

Themistocles, a celebrated Athenian general and politician, was born about 514 B.C. He greatly distinguished himself at Marathon (490 B.C.), and he saved Greece at Salamis (480 B.C.). He after-

wards fortified Athens with strong walls, and rebuilt the *Pæneus*, its harbour. But he lost the favour of his countrymen and was banished. He took refuge at the court of Artaxerxes, King of Persia, and is said to have poisoned himself rather than lead an army against Athens 449 B.C.

Tillotson, John, born 1630, was made Archbishop of Canterbury by William III. in 1691; he died in 1694. His *Sermons* hold a permanent place in English literature.

Titus, Flavius Vespasianus, a distinguished Roman emperor, was born in 49 A.D. When his father Vespasian became emperor, he left Titus to undertake the siege of Jerusalem; which he accomplished in 70 A.D. He was somewhat reckless in his youth; but as emperor, he became a pattern of virtue, and a great reformer of abuses. His people called him "The delight of the human race." He died in 81 A.D.

Turner, Joseph W. M., a celebrated English landscape painter, was born in 1775 at London, where his father was a barber. He was entirely self-taught, and exhibited his first picture at the Royal Academy in his twelfth year. In 1802 he was elected an Academician. Though the first landscape painter of his day, he kept aloof from all society, and was suspected of hoarding money and his own pictures, as he used to repurchase the best of his early works whenever they were offered for sale; but on his death, it was found that he had bequeathed all his pictures and drawings to the nation. He died in an obscure lodging at Chelsea, where he had for some time lived under an assumed name;—1851.

Wellington, Arthur Wellesley, Duke of, the greatest British soldier of modern times, was born in Ireland in 1769. He first served in India, where he gained his first great victory at Assaye in 1803. He entered Parliament in 1807, and became Secretary for Ireland. In 1808 he assumed the command in the Peninsula, and by a brilliant series of campaigns drove the French northward across the Pyrenees

(1814). He gained his crowning victory at Waterloo in 1815. Then began his career as a statesman. He was Prime Minister from 1828 till 1830, and was the confidential adviser of the Queen till his death in 1852.

William of Orange was the grandson of Charles I. and the son-in-law of James II. of England. After the Revolution had driven the latter from his throne, the Prince of Orange was called to succeed him, and was crowned as William III. in 1689. He spent nearly the whole of his life and energy in Continental warfare, the great object of his policy being to check the power of Louis XIV. of France. He was born in 1650, and died in 1702.

Wilson, Dr. George, a distinguished chemist, born at Edinburgh in 1818. His life was devoted to the prosecution of natural science. In 1855 he became Professor of Technology (the science of the industrial arts) in the University of Edinburgh. His mind was quaint, fanciful, and humorous; his style is nervous and polished. He died in 1859.

Wordsworth, William, the chief of the "Lake Poets" (the others were Coleridge and Southey), so called because they lived near the Lakes of Cumberland. He was born in Cumberland in 1770. He was chiefly instrumental in reviving a taste for natural poetry. His greatest poems are *The Excursion* and *The Prelude*; but he is best known by such simple ballads as *Lucy Gray*; *We are Seven*, and *Ruth*. He became poet laureate in 1843, and died in 1850.

Zeno, the founder of the philosophic sect of the Stoics (from Greek *stoa*, a porch, the name of the colonnade where he taught his followers), was born in Cyprus, 355 B.C. He taught that man should live according to nature, and be equally unaffected by pleasure and by pain. His philosophy was highly popular at Rome. Zeno, as well as Cato and Seneca, the greatest of the Roman Stoics, died by suicide; he about 260 B.C.

PHYSICAL GEOGRAPHY.

PHYSICAL* GEOGRAPHY describes the natural features of the Earth's surface, and the natural forces by which changes thereon are produced; air and water, continents and oceans, varieties of climate, and the vegetable and animal life of the globe.

I.—THE ATMOSPHERE.

1. ITS NATURE AND COMPOSITION.—The globe is surrounded by an ocean of air, called the **Atmosphere**. It becomes rarer and rarer the further it recedes from the earth; and beyond a height of 50 miles above the level of the sea its presence, as tested by its power to reflect the Sun's rays, becomes inappreciable. It appears, however, to affect meteors more than 100 miles from the earth.

Every hundred parts of atmospheric air contain twenty-one parts of **oxygen** gas and seventy-nine parts of **nitrogen** gas, nearly; for the air contains also a small and variable proportion of **watery vapour**, and a still smaller proportion of **carbonic acid** gas. The ingredients in the atmosphere form the essential food both of animals and of vegetables,—that which goes to form their substance. Oxygen is necessary to the support of animal life. The material of which the solid parts of plants are formed is derived mainly from the carbonic acid in the air. Now animals live either upon vegetable or upon animal food, or upon both combined. The air-ocean is thus the great storehouse whence the life of the globe primarily draws its supplies. The atmosphere is also the medium by which sound is conveyed from place to place. One of the most important functions of the atmosphere, however, is discharged in carrying from sea to earth that vapour of water which, though comparatively a small ingredient in the air, forms one of the greatest forces of nature. It makes the *dew*, and the *mist*, and the *clouds*, which supply the earth with its moisture, and feed its springs and brooks, its lakes and rivers.

2. EVAPORATION AND CONDENSATION.—Before we examine some of the changes which this water-power works on the face of nature, let us inquire whence it comes, and how it is diffused. Water sprinkled on the pavement of our streets on a summer day soon disappears, and leaves the stones hard and dry. Where has it gone? Not into the stone, certainly. It has been licked up by the dry air, changed into invisible vapour. It requires heat to make this change; and the hotter the air, the more vapour it can take up and hold.

Now the same process is constantly going on in nature on a large scale. It takes place most extensively on the surface of the ocean, especially in tropical regions, where the Sun's heat is greatest. It has been estimated that the ocean imparts its moisture to the atmosphere at the rate of one

* From Greek *physis*, nature.

billion of tons of water per day. This turning of water into vapour is called **evaporation**. The reverse process, by which vapour is again turned into water, is called **condensation**; and as evaporation is the effect of heat, so condensation is the effect of cold. Real steam or vapour is invisible. On watching the steam issuing from the mouth of a kettle, or the safety-valve of a boiler, you do not see it at the mouth, but a little way from it. If you put a glass tube to a kettle mouth, you do not see the steam in the tube, but only after leaving it. Why is this? It is because as soon as the hot steam mixes with the cold air it gives away some of its heat, and becomes cooled. Being cooled, it turns to water again,—it is *condensed*; and the fine light particles, which we see floating about in the air like dust, form a small cloud which we call steam. In like manner, when air having vapour in it is so much cooled that it cannot keep all its vapour in the state of vapour, some of it is condensed into fine particles, and becomes visible as a cloud.

3. RAIN, HAIL, SNOW, &c.—When the condensation continues, the minute particles run together and form drops, which can no longer be suspended in the air, but fall to the earth by their own weight. This is **Rain**. When rain-drops are frozen in their descent, they form **Hail**. When the minute particles are frozen without assuming the form of drops, they fall to the earth in **Snow**. Rain, hail, and snow are thus different forms in which the clouds shed their moisture upon the earth.

The two other forms in which the vapour of the atmosphere is condensed are dew and mist.

Dew is vapour deposited on grass, the leaves of trees, stones, and other objects, when they are colder than the overlying air. Take a glass of cold water into a hot room, and the outside of the glass will immediately be covered with a film of minute water-drops. The glass is really covered with dew, formed in precisely the same way as the dew on the grass.

Mist is cloud formed, not in the upper air, but close to the surface of the ground; and it differs from dew in being formed, not on the ground, but in the air immediately above it. It frequently occurs in the midst of mountains, which cool the air that surrounds them, so that the moist vapours rising from the valleys are condensed as soon as they reach the higher regions. Mist is partly deposited in moisture on the earth, and partly reëvaporated and dispersed by the heat of the Sun.

4. BROOKS AND RIVERS.—Such are the various forms in which the earth derives its moisture from the air. Let us now see what physical effects result from it. This moisture either saturates the surface-soil, forming morasses or fens; or it saturates the sub-soil, forming springs. Morasses and springs overflow into brooks and rivers. Brooks and rivers carry the moisture to the sea, whence it came, and thus the system of water circulation is completed.

A river flows in a scooped-out hollow called the **bed** or **channel**. The sides of this channel, between which the river flows, are called its **banks**. Follow the stream downwards, and the bank on your right hand is called the *right bank*; that on your left is the *left bank*. Probably you come to a place where it meets another stream; that is their **confluence**. Of two meeting streams, the smaller is said to be a **Tributary** of the larger. In the case of

two streams of nearly equal size, that is considered the main stream whose direction is unchanged, and that the tributary whose course is altered. If you follow the river as far as it goes, you will come to where it enters the sea; that is its mouth. A steep descent, or precipice, in the bed of a river causes a Waterfall. A great waterfall, like Niagara, is called a cataract. Smaller ones are called cascades.

Turn now and go up the stream, in order to find whence it has come. You pass where one tributary after another joins it. Each tributary swells it. Above each confluence the stream is smaller. At last you come to mere threads or rills of water trickling from a mountain-side. You have reached the source of the stream.

All streams cannot be traced up to such small rills. Some come in greater body from springs; others issue from the glacier-ice of great mountains; others from broad marshes in a flat country. But all these sources derive their supplies of water in the first instance from the moisture in the atmosphere. All streams begin in some kind of rain.

5. RIVER-BASINS AND WATER-SHEDS.—A great river and all its tributaries form a River-system. Take a map; mark all the sources of a river and its tributaries, and join the points: the enclosed space is the River-basin.* The high land between two adjoining river-basins, which, like the

* Scotland may be taken as an example of a small country with well-defined river-basins. The chief are those of the Solway, the Clyde, the Tweed, the Forth, the Tay and Esk, the Dee and Don, and the Moray Firth.

The Solway Basin includes the counties of Wigton, Kirkcudbright, and Dumfries. It is bounded by the western part of the Cheviot Hills, the Lowther Hills, the Lead Hills, and the line of high ground extending thence along the extreme south of Ayrshire.

The Clyde Basin includes the counties of Argyre, Bute, Dumbarton, Lanark, Renfrew, and Ayr. It also is bounded by the line of high ground just named, by the Lead and Lowther Hills, by the high ground connecting the latter with the Pentland Hills and extending along the north-east border of Lanarkshire, by the Campsie Fells and the heights east of Loch Lomond.

The Tweed Basin includes the counties of Berwick, Roxburgh, Selkirk, and Peebles. It is bounded by the Cheviot and Lowther Hills, by the Pentland Hills and the high ground connecting these with the Lowther Hills, by the Moorfoot Hills, and by the Lammernuir Hills.

The Forth Basin includes the counties of Haddington, Mid-Lothian, Linlithgow, Stirling, Clackmannan, Kinross, and Fife. It is bounded by the Lammernuir, Moorfoot, and Pentland Hills; by the high ground on the north-east border of Lanarkshire, the Campsie Fells, and the hills on the east side of Loch Lomond; by the Ben More and Ben Voirlich groups of the Grampians; and by the Ochil Hills.

The Tay and Esk Basin includes Perthshire and Forfarshire, and part of Kincardine. It is bounded by the Ochil Hills on the south and the Grampians on the north.

The Dee and Don Basin, which includes the north of Kincardine, and Aberdeen, is bounded by the two branches of the Grampians that separate Aberdeenshire from Forfar and Perth on the one side, and from Banff on the other.

The Moray Firth Basin includes the counties of Banff, Elgin, Nairn, Inverness, Ross and Cromarty, Sutherland and Caithness. It is bounded on the east and south by the Grampians, on the west by the mountains of Ross-shire. It includes many smaller basins, the chief of which are those of the Spey, the Findhorn, the Ness, and the Dornoch Firth.

See Nelson's Wall Map of Scotland, Coloured to show the River Basins.

ridge on the roof of a house, divides the water flowing from it, and sends the rivers in opposite directions, is called the **Water-shed**, or **water-parting** of the country. When the water-shed lies east and west, as in Europe and Asia, the general direction of the rivers is north and south. When the water-shed lies north and south, as in South America, the general direction of the rivers is east and west. The more distant the mountain system of a country is from the sea, the gentler and more varied is its slope, and the greater are its rivers. The most remarkable illustration of this is afforded by the Andes in South America. These mountains lie very near the west coast, and thousands of miles from the east coast. Consequently, there are on the west of South America only a few mountain torrents; on the east there are three of the greatest rivers in the world—the Orinoco, the Amazon, and the La Plata.

In Asia the greatest rivers are in the north, because the mountain system is nearer the south; but there, as in Europe, the high land occupies a central position, from which considerable rivers flow in nearly all directions.

6. USES AND EFFECTS OF RIVERS.—Rivers are of the greatest importance to a country, not only as a natural drainage for its soil, but also as the natural means of internal communication; though in this respect they are now superseded to a great extent by railways. The Rhine, the Danube, and the Ganges, are still great highways of traffic. The Mississippi and its tributaries are navigable to a distance of 3000 miles from its mouth; while the inland navigation of the Amazon system extends to no less than 50,000 miles. The greatest sea-ports in the world are at or near the mouths of rivers.

Some of the most striking physical changes on the Earth's surface are due to the action of rivers. A river is constantly gnawing away and undermining its banks, large portions of which are often swept away by floods. The soil thus set free is carried down by the river in its course. When its basin broadens, and its speed slackens, much of this is deposited on the bottom of its channel, or on the flats which it has overflowed. Thus what it has borrowed from the solid earth at one part of its course, it repays at another. Sometimes this deposit of rubbish takes place at the mouth of a river, and is so regular and constant as to raise up a barrier in the river's way, and cause its stream to divide. The river thus empties itself into the sea by two or more mouths, instead of one. These mouths or arms enclose the triangular bed of deposited debris; which, from its resemblance to the Greek letter Δ (Δ), is called a *Delta*. The most remarkable deltas are those of the Nile and the Mississippi.

7. GLACIERS AND ICEBERGS.—This, however, is not the only effect of water-force in the past history of the globe. Men of science are now generally of opinion that mountains have been formed by the hollowing out of the valleys, and that this hollowing out has been the work of rain and streams and ice, which wear channels for themselves with resistless power, even in solid rock.

The form in which ice does this work is that of a **Glacier**, or ice-river, which, very gradually, but very surely, rolls down the valleys from the regions of perpetual snow. A glacier as truly drains a region over-burdened

with snow, as a river drains a region over-saturated with water. While the debris that falls into a river sinks for the most part to the bottom—only the light sand and soil being carried down—the debris that falls on the surface of the glacier, or bars its course, is carried forward bodily and with the utmost certainty. Huge *boulders*, which no human engineering could move, have thus been carried in the mass over miles, and then deposited on the margin of fertile valleys. For when the glacier reaches a warmer region, it gradually melts, and a muddy stream issues from it. At the same time the debris, which forms a long line of rubbish on its surface, called a *moraine*, is deposited in the valley.

In the region of glaciers, as elsewhere, fragments of rock are detached in various ways by the action of the atmosphere. The carbonic acid contained in rain causes some rocks, especially limestone, to crumble into sand. The oxygen in the air, which makes iron rust, also forms a crust on the surface of many rocks. This falls off, and a new crust is formed; that too falls off, and thus coat after coat is peeled away. Lastly, when water gets into crevices and clefts of rocks, and freezes, it expands, and breaks off fragments, which fall into the valleys.

When a glacier meets a lake, as happens in some parts of Switzerland, large masses of it break off, and are hurled into it, and float upon its surface till they gradually melt away. These floating masses are called *icebergs*, or ice-mountains. The icebergs of the ocean have the same origin. They are



FORMATION OF ICEBERGS.

detached masses of Arctic glaciers which glide down to the sea. It requires a very long time to melt an iceberg. It is often floated two thousand miles from the place where it was launched before it disappears. It carries with it over all that distance whatever rocks and rubbish have been frozen into its substance. As it gradually melts, its debris is dropped into the sea. Sometimes an iceberg is stranded in comparatively deep water; for it is found that there are eight feet under the water for every one foot that appears above it. An iceberg so stranded melts away by degrees, and deposits where it melts the moraines and boulders which it may have borne with it from its

native mountains. This is but another example of how water-force operates in changing the face of nature.

The bottom of every glacier is covered with loose stones and sand, which cause it to leave peculiar *scratchings* on the rocks over which it has passed. These scratchings, as well as moraines and boulders, are found in many countries where glaciers no longer exist. The inference is, that glaciers must once have existed there,—for example, in Scotland, in Cumberland and Wales, and in Ireland. This has led to the further conclusion that many lakes owe their origin to ice-force. For a mountain-lake is simply a valley which has been dammed up at its lower end, so that the river flowing into it could not proceed further until the valley was filled with water. The damming up has in many cases been the work of ice.

A few lakes, like Titicaca in South America, have no rivers running into them, and no outlet to the sea. Such lakes are supposed to be the craters of extinct volcanoes. Some are supplied by rivers, but send none out. They are usually salt lakes, such as the Caspian Sea, the Sea of Aral, and the Dead Sea in Asia; and the Great Salt Lake in North America. They are supposed to get rid of their superfluous water by evaporation. The largest fresh-water lake in the world is Lake Superior in North America. It covers 43,000 square miles, and is thus one-third larger than Ireland.

8. WINDS.—The air-ocean, like the water-ocean, is subject to disturbances,—constant, periodic, and variable. A current of air is called **Wind**. The chief causes of wind are change of temperature and the Earth's rotation. Heated air is lighter than cold air, and rises through it, just as hot water rises through cold water. When the air is heated unequally, its density varies in different regions, and the equilibrium of the air-ocean is disturbed. The disturbance begins in the equatorial regions, where the heat is greatest; but it gradually extends to other parts of the atmosphere, resulting generally in under-currents toward the Equator, and upper-currents toward the Poles. There is thus a constant circulation of air going on in the atmosphere, and thus, for the most part, are winds produced. But air-currents are also caused by electrical influences, and by the attraction of the Sun and Moon.

The rate of wind varies from 5 miles an hour,—a light *breeze*,—to 80 or 100 miles an hour,—a *hurricane*. From 30 to 40 miles an hour, it is reckoned a high wind or a *gale*; at 50 miles an hour, it is called a *storm*.

The air is hottest over the Torrid Zone; and there, therefore, it is constantly rising upwards, while colder air is flowing from the Poles to supply its place. If the globe did not rotate, the result would be a north wind in the northern and a south wind in the southern hemisphere, constantly blowing towards the Equator. But the Earth's rotation gives a greater speed to places near the Equator, because they are turning round a larger circle in the same time as other parts of the Earth; and the cold currents lag behind, because, as they approach the Equator, they are passing into regions which have always a higher velocity than the regions from which they have come.

Change of temperature alone would produce north and south winds. Rotation alone would produce east winds. The combination of these two forces produces a north-east and a south-east wind on the north and the south of the Equator respectively. These winds, which are nearly constant in the

great oceans, are called **Trade winds**, because of their great advantage to navigators in sailing from east to west. ✓

✦ The trade winds are most regular in the Atlantic Ocean. In the Pacific, the number of islands and banks interferes with the constancy of the south-east trade wind. In the Indian Ocean, the south-east trade wind alone blows, owing to the mass of land north of the Equator.

The region of the trade winds extends to 28 or 30 degrees on each side of the Equator. But between the northern and the southern trades there is a zone of variable breezes, or equatorial calms, called *Doldrums*, where rain, accompanied by thunder-storms, is almost constant. Outside of the trade winds there are also narrow belts of calm, called the *Calms of Cancer* in the north, and the *Calms of Capricorn* in the south. Beyond these regions of calm, the winds are variable; but in the North Temperate Zone, westerly and south-westerly winds prevail; in the South Temperate Zone, north-westerly.

Monsoons are periodical winds in the Indian Ocean, owing to the bridg-ment of that ocean by the continent of Asia, which prevents the formation of a north-east trade wind there. • •

For one half of the year (from April till October) a south-west monsoon carries moisture to India and the east of Asia. Then the Sun is vertical north of the Equator. The temperature of the land in Asia becomes high. The air over it is rarefied and rises; and cool winds rush in from the Indian Ocean to supply its place.* +

During the other half of the year (October till April) the north-east monsoon blows towards Africa. Then the Sun is vertical south of the Equator. It is winter in Asia, and its temperature falls below that of South Africa, towards which, therefore, the currents of air are attracted. The north-east monsoon leaves Asia as a dry wind; but it acquires some moisture in crossing the ocean, and bears rain to the south-east of Africa. ,

The change of the monsoons is accompanied by violent storms, often by hurricanes. The Chinese farmer watches for the coming of the monsoon as eagerly as the Egyptian rice-grower watches for the inundation of the Nile. The monsoons also regulate the navigation of the China Sea and the Indian Ocean.

Partial and irregular monsoons prevail on the west coast of Africa, on the coast of Brazil, and on the west coast of America, from California to Chili.

The alternate **Land and Sea Breezes**† of tropical countries are due to the greater heat of the land during the day, and the greater heat of the sea during the night.

Certain local winds have special names :—

The **Simoom** is a dry, noxious Desert wind in Arabia.

The **Harmat'tan** is the name given, on the west of Africa, to the wind originating in the Sahara.

The **Sirocco** is the same wind tempered by the Mediterranean, blowing as a hot south-east wind towards Sicily and Italy. It is called the **Sola'no** in Spain, and the **Sa'miel** in Turkey. ✓

Typhoons, or whirlwinds, are hurricanes which sweep over the China

* See lesson on *The South-west Monsoon in Ceylon*, p. 293

† See lesson on *Land and Sea Breezes*, p. 92.

Sea more or less regularly from June till November, recurring with tremendous violence once in three years.

Cyclones, or hurricanes which whirl in circles at the same time as they advance, are frequent in the Indian Ocean between September and May, and in the West India seas between June and October. All whirlwinds are caused by the contact of two currents of air blowing in opposite directions. On land, they are often so powerful as to carry hay-stacks into the air, to tear off branches of trees, and to unroof houses. At sea, and in the clouds, they often produce **Water-spouts**.

The **Pampe'ros** are south-west winds which blow from the pampas of South America across the La Plata estuary.

Etesian Winds are the north-east winds which, in July and August, blow across the Mediterranean towards the heated surface of Africa. χ

QUESTIONS. — What does Physical Geography describe? Give the etymology of the word *physical*.

1. What surrounds the globe? At what distance above the earth does the atmosphere disappear? Of what is atmospheric air composed? What element in it supports animal life? What supports vegetable life? What is conveyed through the air as a medium? What is one of its most important functions?

2. Whence does the vapour of water come? Where is evaporation greatest? Why? How much moisture does the ocean impart to the air per day? What causes condensation? What is cloud?

3. What is rain? What is hail? What is snow? What is dew? What is mist? Wherein does it differ from dew?

4. What becomes of the moisture which the earth receives from the air? How does it pass into brooks and rivers? Where do brooks and rivers carry it? What is the difference between a river and a pond? What is the bed of a river? What are the sides of the channel called? Which is the right bank? What is the junction of two rivers called? What is a tributary? What does a precipice in the bed of a river cause? What are the different sources of rivers?

5. What is a river-system? How do you mark off a river-basin? What is the high land between two adjoining river-basins called? What is the effect of a mountain-system being far from the sea? Name the chief river-basins in Scotland, and the water-sheds between them.

6. In what respects are rivers important to a country? Mention rivers which are great highways of traffic. What is said of the greatest sea-ports in the world? What

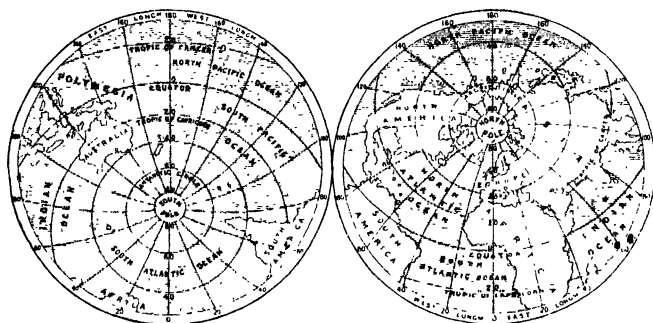
becomes of the soil which a river sweeps away from its banks? What sometimes takes place when it is deposited at the mouth of a river? Which are the most remarkable deltas?

7. How are mountains believed to have been formed? In what form does ice do this work? What does the glacier carry forward with it? Where does it deposit these? How are fragments of rocks detached in the region of glaciers? What is an iceberg? What does it carry on its surface? Where does it deposit these? What are proofs that glaciers once existed where there are none now? What has been the origin of many lakes? What is peculiar in Lake Titicaca? Mention lakes that have no outlet. Which is the largest fresh-water lake in the world?

8. What is a current of air called? What are the chief causes of wind? Explain this? What other causes are there? What is a hurricane? What two forces combine to produce the Trade Winds? Why are they so called? In what directions do they blow? Where are they most regular? What is peculiar in the Pacific trades? and in those of the Indian Ocean? Where is the region of the trade winds? What lies between the northern and southern? What lies outside of them? What are Monsoons? To what are they owing? When does the south-west monsoon blow? By what is it caused? When does the north-east monsoon blow? What change takes place on it in its passage from Asia to Africa? By what is the change of the monsoons accompanied? Where else do partial monsoons occur? What is the Simoom? the Harmattan? the Sirocco? What are Typhoons? Cyclones? Pamperos? Etesian Winds?

II.—LAND AND WATER.

The surface of the globe consists of **Land** and **Water**; but the water-area greatly exceeds the extent of the land. Little more than one-fourth of the Earth is land; nearly three-fourths are water. Most of the land lies to the north of the Equator; most of the water to the south. If we could be, ele



SEA AND LAND HEMISPHERES

ated over London sufficiently high to be able to see one-half of the globe (that is, a hemisphere), our view would include nearly all the land surface—all except a small portion of South America, a smaller portion of Africa, some of the East India Islands, and Australia. London is nearly the centre, or pole, of the hemisphere of greatest land.

1. THE CONTINENTS.

The land of the Earth is arranged in two great masses, lying nearly opposite each other on the globe. The larger mass lies in the Eastern Hemisphere, and is called the **Old World**, because it has been longer the home of civilization and science. The other, lying in the Western Hemisphere, is called the **New World**, because it is but a few hundred years since it became known to civilized man.

It should be noted that *eastern* and *western*, as applied to the hemispheres, are purely relative terms. Asia is west of America, as America is west of Europe. But as America was discovered by Europeans, who sailed westward, the New World was naturally called by Europeans the Western Hemisphere.

Both worlds are very broad in the north, so much so as nearly to touch each other; but they gradually separate, and extend southward in three different masses, terminating in three points very distant from each other.

Each of these masses of land is broken midway by the sea, which nearly or quite divides it, thus forming six distinct masses of land called **Continents**—three on the north and three on the south. The northern continents are Asia, Europe, and North America; the southern are Australia, Africa, and South America.

In the Old World, Europe and Asia form really one great continent.

Australia and Africa are smaller portions connected with it, the former by a chain of islands the latter by an isthmus. Thus the direction of the great mass of the Old World is east and west.

In the New World, both the continents are triangular in form, with their narrowest points turned southward. Thus the New World has its greatest extent from north to south.

The Old World is nearly double the size of the New, and forms—Australia apart—a much more compact mass.

The continents are very unequal in size: Asia is the largest, and Australia the smallest. Australia is three-fourths of the size of Europe; South America would make two continents like Europe; North America, a little more than two; Africa, a little more than three; and Asia, four and a half.

LOW-LANDS AND HIGH-LANDS.—Those lands which are nearly at the level of the sea—and that level is everywhere the same—are called **Low-lands**; those which are much above it, **High-lands**.

Low-lands are either valleys or plains. A **Valley** is a narrow belt of low-land between higher lands. A **Plain** is a wide extent of low-land. The most remarkable plains in the world are the Great European Plain, extending from the North Sea to the Ural Mountains; the Australian Plains; the Prairies and Savannas of North America; the *Silvas*, *Llanos*, and *Pampas* of South America; and the Steppes of Russia and Siberia.

High-lands are either plateaux or mountains. A **Plateau**, or table-land, is a high plain. It is called a table-land because, when compared with a low-land plain, it is like the top of a table compared with the floor. The most noted plateaux in the world are the Great Table-land of Central Asia; the Plateau of Iran, or Persia; the south of Siberia; the Table-land of Castile in Spain; the Plateau of Abyssinia in Africa; and the Table-land of Mexico in North America. A **Mountain range** is a ridge of high land extending through a country. Such are the Ural Mountains and Caucasus in the Eastern Hemisphere, and the Appalachians in the Western.

We generally find a number of mountain ranges connected with one another. They then form a **Mountain System**. Such are the Alps, Apennines, and Carpathians in Central Europe; the Himalaya, Thian-Shan, Kuenlun and Khin-gan Mountains in Central Asia; and the double and triple ranges of western heights in North America.

Upon the elevation and direction of the mountain system of a country depend its drainage, its slope, and its exposure; and hence, to a certain extent, its climate and productiveness. ✕

✎ **Volcanoes** are mountains which throw out from their interior dark clouds of vapour, ashes, red-hot lava, and sometimes hot water. Volcanoes are usually of a conical form, with a bowl-shaped mouth, called the *crater*, in place of a peak. Many rise from the midst of a surrounding plain, like Vesuvius in Italy; others from the top of a mountain range, like those of the Sierra Nevada in North America. They are most numerous within the Tropics, and occur either in groups or in chains. There are more than 270 active volcanoes on the globe. Some of these are of moderate size; but others, as Cotopaxi (18,875 feet) in Ecuador, and Popocatepetl (17,783 feet) in Mexico, are among the highest mountains on the Earth. The higher the

crater is, the less frequent are the eruptions. This is believed to be due to the fact that volcanoes are in direct connection with the fire which is raging in the interior of the globe. In fact, volcanoes may be regarded as safety-valves by which the excess of internal agitation finds vent, and but for which earthquakes would be more frequent than they are. In proof of this it has been observed, that in the neighbourhood of volcanoes earthquakes seldom occur, and are slight when they do occur. In volcanic regions, slight earthquakes are often the forerunners of eruptions, showing that both are due to the same cause. Thus, for several days before the great eruption of Mount Vesuvius in 79 A.D., which destroyed Pompeii* and Herculaneum, shocks of earthquake were felt in all the neighbouring towns and villages. The wide range of the influence of earthquakes shows that they proceed from a remote centre. Thus the great earthquake by which Lisbon was destroyed in 1755, and in which 50,000 inhabitants perished, was felt in Scandinavia, in Scotland, and even at Lake Ontario in North America.

Akin to volcanoes and earthquakes in their origin are hot-water springs, the most remarkable of which are the *Geysers* (that is, *Ragers*) of Iceland. Within the space of a few acres more than fifty of these geysers may be seen. The greatest of them explodes once in forty hours or more, and then it sends into the air a column of hot water to the height of seventy feet.

THE CRUST OF THE EARTH (the study of which is called Geology) is composed of a great variety of mineral substances, metallic and non-metallic. The depth to which the Earth's crust has been examined is very small in comparison with its radius. The distance from the Earth's surface to its centre is nearly 4000 miles. The deepest mine has not been sunk more than one-third of a mile in perpendicular depth! The comparison of the shell of an egg with its yolk would give quite an exaggerated view of the fraction of the Earth's crust that has been examined.

An examination of this portion, however, shows that the same rocks occur in all parts of the Earth; and that the order of the strata, or layers of rock, is always the same. These rocks are of two great classes: 1st, **Igneous**, or **Eruptive Rocks**, which have been produced by fire; as basalt and granite. In connection with these the metals occur. 2nd, **Aqueous**, or **Sedimentary Rocks**, which have been deposited by water; as limestone and sandstone. In connection with these coal occurs.

From these, two classes of mixed rocks have been produced;—*Conglomerates*, such as the Essex pudding-stone, formed of pebbles and fragments of stone of different kinds cemented into masses; and *Metamorphic*, or crystalline rocks, such as gneiss, quartz-rock, and clay-slate, formed out of sedimentary rocks by the action of fire.

2. THE OCEANS.

The three great masses of land which stretch southward from broad bases near the Arctic Circle, are separated from one another by three great oceans—the Atlantic, the Pacific, and the Indian. The Atlantic separates Europe and Africa from America; the Pacific separates America from Asia and

* See lesson on *The Destruction of Pompeii*, p. 286.

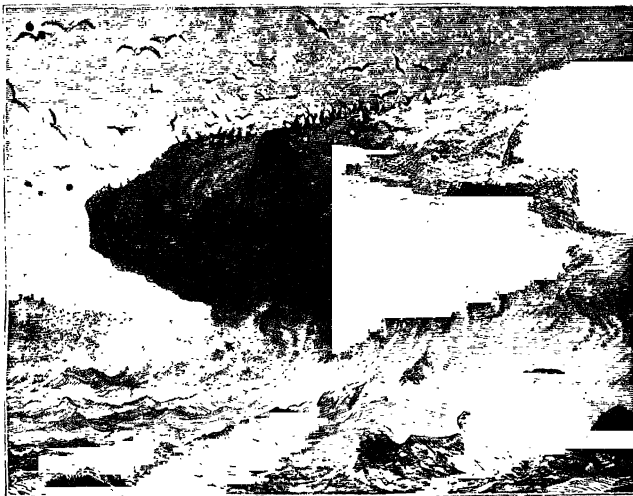
Australia; the *Indian* separates Australia from Africa. These great oceans are the highways of communication between the continents.

Two smaller oceans surround the North and the South Pole respectively, and are called the *Arctic*, or North Polar, and the *Antarctic*, or South Polar Oceans.* These are of no importance as commercial highways, but they are resorted to, especially the former, for their valuable whale fisheries.

The greatest depth of the ocean that has been measured is probably south-east of Newfoundland, where it is about 30,000 feet. The average depth of the ocean seems to be greater than the mean height of the land.

The disturbances to which the waters of the ocean are subject are waves, tides, and current..

1. **WAVES.**—Waves are occasional agitations of the surface of the sea, caused by the violence of the wind. The influence of waves extends comparatively a little way below the surface. Even in the most violent storm, the sea at the depth of 50 fathoms (300 feet) is perfectly quiet. The action



ACTION OF WAVES UPON A ROCK.

of the waves of the sea upon the coast is constantly wearing away both rock and soil. Where a coast is steep and rocky, the constant dash of the waves cuts and wears away the base of the cliff, sometimes leaving the top, which is beyond their reach, jutting over, as in the illustration. This is especially the case where the under part is a softer stratum than the upper. This

* For a particular description of *The Five Oceans*, see ROYAL READER No. V.; and *Nelson's Geography and Atlas*.

goes on till the top is undermined, and great pieces from time to time fall off. These great pieces are gradually worn and broken to smaller ones. This is done not only by the wear of the water-particles themselves, but also and chiefly by the waves in storms rolling and dashing one stone against another. In the same way all stones exposed to the waves get rounded and smoothed, and reduced to small *pebbles*; or, if the rock is one that splits in layers, to flatter stones called *shingle*. Spread out by the waves, they lie as a pebble *beach* or a shingle *beach* at the foot of the cliff. If the slope is too great, they are carried below low-water mark and disappear. The same process of rolling and grinding reduces pebbles and stones to mere sand—fine or coarse. These are the materials of beaches, along with shells and fragments of shells. Where there are softer parts of a sea-cliff, the sea wears out *caves*; and where there are harder parts, these sometimes remain unworn and stand out as *outliers*.

It is from the waste of rocks and soil that the sea derives its saltness. This is not due entirely, however, to the action of waves, as rivers are constantly conveying mineral salts in great quantities from the interior of the land to the ocean. The degree of saltness is not the same in all parts. On an average there are 35 parts of solid matter in every 1000. Of these, 24 are common salt, 4 are salts of soda, and 4 are salts of magnesia. ✕

2. **TIDES.**—The tides are the alternate rising and falling of the waters of the ocean, produced by the attraction of the moon, modified by that of the Sun. Both land and water are subject to this attraction. But the land can yield to

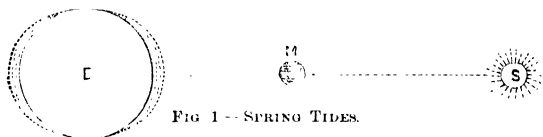


FIG. 1.—SPRING TIDES.

it only in the mass. The water undergoes a removal of its particles, so that it is heaped up into a mass directly under the moon. As the Earth rotates, a

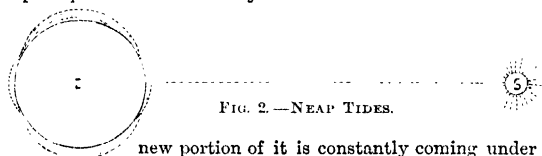


FIG. 2.—NEAP TIDES.

new portion of it is constantly coming under the moon's influence, and thus the tidal wave follows the moon round the globe. But this would account for only one tide in twenty-four hours, whereas there are two in that time. To account for the double tide, we must remember that the solid Earth yields to the moon's attraction as well as the movable water. But when the Earth is drawn towards the moon, it leaves the waters on the opposite side

just as far behind it as the waters on the side nearest the moon stand out from it. ✓

At new and at full moon, when the attraction of the Sun acts in the same line as that of the moon, the tide-waves are higher than usual, and are then called *spring-tides*. (Fig. 1.) At the moon's first and third quarters, the line of its action is at right angles with that of the Sun's, and the tide-waves—then lower than usual—are called *neap-tides*. (Fig. 2.) The tide-wave naturally moves with greatest uniformity and freedom when it meets with fewest obstructions. Accordingly, it is in the Antarctic Ocean, which forms an uninterrupted zone of the globe, that the daily tide-waves take their rise. Thence a branch sweeps up each of the three great oceans. The Pacific tide is the least marked, probably because the islands and reefs of Polynesia stretch across its entrance like a great harbour-bar. The Atlantic tide advances northward at a steady pace. The wave is not high in mid ocean; but when it strikes upon the shores of Europe and America, it assumes the form of a current. Thirty hours after leaving the Southern Ocean it reaches the west of England. It then passes round the north of Scotland into the North Sea, and thus reaches London some hours after it has passed Aberdeen. A smaller branch of the tide-wave, however, passes along the south of England, and through the Strait of Dover.

The narrower the channel through which the wave flows, the higher does it rise, and the greater is its velocity. In the open Atlantic it does not exceed eight or ten feet; but in bays which contract as they recede, such as the Bristol Channel and the Bay of Fundy,* it rises to twenty or thirty, and sometimes to fifty or sixty feet in height. Where such bays lead up to river-estuaries, the wave, still converging, forms a head or wall of water, termed a *bona*, which ascends the river with sudden and destructive impetuosity.

Many rivers are remarkable for their tide-*bores*, such as the Severn, Garonne, Amazon, and Hoogly; but that of the Tsien-tang* in China appears to excel them all in grandeur. It assumes the appearance of a foaming cataract four or five miles across, and about thirty feet high, advancing at the rate of twenty-five miles an hour. ✓

✓ **3. CURRENTS.**—Currents are classified into constant, periodic, and variable; but they move much more slowly than the tidal wave. The latter passes the western shores of the British Isles at the rate of one hundred miles *an hour*. The Gulf Stream, in crossing the Atlantic, sinks to a rate of four miles *a day*.

One cause of variable and periodic currents is the force of the winds acting on the surface of the sea. The chief causes of the constant currents are the rotation of the Earth and differences of temperature within the ocean itself. The direction of currents is modified by the position of great masses of land.

The greatest ocean currents are those in the region of the Equator. During the greater part of their course they are coincident with the trade winds, and have, therefore, a general westerly direction.

Their westerly flow is in a great measure due to the Earth's rotation. As the Earth spins round on its axis from west to east, the waters of the ocean, owing to their mobility, have a tendency to lag behind; and this produces in

* See ROYAL READER No. V.

the tropics, where the Earth's rotatory velocity is greatest, surface currents westward.

When these westerly currents strike upon the eastern shores of the great continents, they are deflected partly towards the north and partly towards the south, and finally return as easterly connecting currents to the region from which they started. There is thus a system of *horizontal* circulation of water in all the great ocean basins. ✓

But there is also a *vertical* circulation of water constantly going on, caused by the difference of temperature between the equatorial and the polar seas. The waters of the ocean are hottest at the Equator and coldest at the Poles. The whole of the intervening waters oscillate between these two extremes; and the result is a gradual warm upper-flow from the Equator to the Poles, and a cold under-flow from the Poles to the Equator. Though these streams undoubtedly aid and modify the horizontal currents, they are much less marked in character than the latter. They rather consist in a gentle progression of surface-water northward, and of bottom-water southward, than of well-defined currents, or ocean-streams.

As the horizontal circulation of water is aided by the Earth's rotation, so its vertical circulation is supplemented by the great and constant evaporation which takes place in tropical regions. The millions of tons of water which the Sun is constantly drawing up from the surface of the ocean are replaced from below, and the water drawn up from below is replaced by the under-currents from the Poles. Again: the water drawn up into the atmosphere is carried northward and southward by the prevailing winds; and returns to the ocean in the shape of rain, snow, ice, and the water of rivers. The aerial circulation of waters already described has thus its effect on the currents of the ocean. ✕

The best defined of all the ocean currents are the northern equatorial currents in the Pacific and Atlantic Oceans. The North Pacific Equatorial Current, striking on the coast of China, is there turned northward and eastward, and recrosses the Pacific as the Japan Current, sending a branch northward by Kantchatka to the Arctic Ocean.

The corresponding current in the North Atlantic is the famous Gulf Stream; so called because it issues from the Gulf of Mexico before crossing the Atlantic. After doubling the point of Florida, this current flows in a direction nearly parallel with the coast of the United States for a thousand miles. It then trends to the eastward, and crosses the Atlantic as a north-easterly current. When it is about a thousand miles from the coast of Spain it is divided, one branch turning southward towards the Equator, the other turning northward towards the Arctic Ocean, which it reaches by passing between the British Isles and Iceland. ✕

It has been customary to ascribe the mild climate of Western Europe, as compared with the corresponding latitudes of America, exclusively to the influence of the Gulf Stream. On this point, however, there is great diversity of opinion. The view is gaining ground that the Gulf Stream becomes so much dispersed before it reaches the middle of the Atlantic, that it cannot produce the wonderful effects ascribed to it; and that these effects are due to the general circulation of the water-system of the globe, which is

constantly carrying warm surface-currents from the Equator to the Poles, and cold under-currents from the Poles to the Equator. Of this system the Gulf Stream is merely an accidentally accelerated portion.

The exceptional mildness of the British Isles is further due, partly to their insular character and their moist south-westerly winds, but still more to the fact of their occupying a submarine plateau which removes them, and the waters which surround them, entirely from the influence of the cold under-currents. The exceptional coldness of the north-east of North America, on the other hand, is due not only to the absence of the equatorial current, but to the presence of a cold arctic current which skirts its coast, and to the prevalence of dry north-easterly winds.

QUESTIONS.—What are the proportions of Land and Water on the globe? Where does most of the land lie? What place is the centre of the land hemisphere?

1. In how many great masses is the land of the Earth arranged? How are they denominated? Why? Where are both worlds broadest? How many continents are there? Name them. What two so-called continents really form one? What is the direction of the mass of land in the Old World? and in the New? What are the relative sizes of the Old World and the New? Compare the other continents with Europe in respect to size.

Define Low-lands, High-lands, Plain, and Valley. Which are the most remarkable plains in the world? What is a plateau? Mention the most noted plateaux in the world. What is a Mountain System? Give examples.

What are Volcanoes? Where are they most numerous? How many active volcanoes are there on the globe? What volcanoes have fewest eruptions? Why is this? In what light may volcanoes be regarded? Mention facts which confirm this view. Where are the most remarkable hot-water springs? What are they called?

Of what is the crust of the Earth composed? To what depth has it been examined? What has been observed regarding the kinds of rock? and regarding the order of strata? What are the two great classes of rock? What occur in connection with the former? and with the latter? What kinds of mixed rock have been produced from them?

2. What are the three great oceans? Name the two smaller ones. For what are the latter valued? To what disturbances are the waters of the ocean subject?

By what are waves caused? How far does their influence extend below the sur-

face? What effect have waves on a rocky coast? By what are large rocks broken into small pieces? What is the difference between pebbles and shingle? How is sand produced? What are the other materials of beaches? How are caves and outliers formed? Whence does the sea derive its saltness? What are the chief ingredients of sea-water.

What are the Tides? What causes them? Why are there two tides in twenty-four hours? What are spring-tides and neap-tides? How are they caused? Where do the daily tide-waves originate? What direction does the Atlantic tide take? What is a tide-bore? How is it caused? Mention remarkable instances of it.

What are Currents? At what rate do they flow compared with tides? What is one cause of variable and periodic currents? What are the chief causes of constant currents? By what is the direction of currents modified? Where are the greatest ocean currents? In what direction do they flow? To what is their westerly flow in great measure due? What turns their course? In what directions? What kind of circulation of water thus arises? By what is the vertical circulation caused? What is the character and the direction of the upper-currents? and of the under-currents? By what is the vertical circulation supplemented? Which are the best defined ocean currents? Describe that in the Pacific. What form does the North Atlantic Equatorial Current assume? Why is it called the Gulf Stream? Describe its course. What has it been customary to ascribe to that current? On what ground is that opinion questioned? To what are these effects rather supposed to be due? To what is the exceptional mildness of the British Isles in some measure also due? To what is the exceptional coldness of part of North America due?

III.—CLIMATE.

The climate of a place means its prevailing temperature and moisture.

Climate varies chiefly, in the first instance, with latitude; that is, with the distance of a place from the Equator: because the more of the Sun's rays a place receives, the hotter it is; and the nearer a place is to the Equator, the more vertical are the Sun's rays, and more of them, therefore, fall on a given area.

But places in the same latitude have not always the same climate. New York and Naples are in nearly the same latitude. In New York, there is snow on the ground for several months every year. In Naples, orange groves need no protection even in winter. In America, Quebec is the only great city north of lat. 45°. In Europe, London, Paris, Berlin, and all the largest cities, are near lat. 50°; and there are large cities, as St. Petersburg and Stockholm, near lat. 60°.

These, and such differences, are due to secondary causes modifying the effect of the solar heat. The chief of these secondary causes are:—

1. **Elevation.**—The higher a place is above the sea-level, the colder it is. Even in the Torrid Zone the lofty mountain peaks are always covered with snow. The reason of this is, that, having less water-vapour over them to intercept and radiate heat back, they lose more heat by radiating it into space.

2. **Aspect.**—Lands which slope towards the Equator receive more of the Sun's rays than those which slope towards the Poles; and their temperature is higher in proportion as the angle of inclination is greater. One reason of the difference of climate between the same latitudes in Europe and America is, that in the latter all the land north of lat. 50° slopes towards the Pole; in the former only a small portion north of lat. 60° does so.

3. **Proximity to large tracts of Land or of Water.**—Places near the sea are neither so cold in winter nor so hot in summer as places far removed from it. Water reduces the heat of summer, because it takes longer to heat—that is, it remains longer cool—than land. Water reduces the cold of winter, because it takes longer to cool—that is, it continues longer warm—than land. Water therefore produces a moist and temperate climate, while large tracts of land tend to produce a dry atmosphere, with great extremes of heat and cold. Thus Moscow is both colder in winter and warmer in summer than Edinburgh, which is in the same latitude. The mean winter temperature of the former is 23 degrees lower than that of the latter; its mean summer temperature is 7 degrees higher. Climate tempered by water is called *insular*; climate modified by land is called *continental*.

4. **Direction and Height of Mountain Ranges.**—Mountains afford shelter from prevailing winds. The north of Europe is warmer than the north of Siberia, because the mountains of Scandinavia and Lapland protect it from the Polar winds.

5. **Character of the Land Surface.**—Rocky and sandy soil is hot; moist and forest land is cool. As forests are cleared, and drainage and cultivation progress, climate is ameliorated.

6. **Prevalent Winds and Ocean Currents.**—Winds which blow from the sea are moist and refreshing; those which originate on continents are dry and enervating. Sea winds are also affected by the ocean currents, which

they frequently accompany. Thus the climate of the western coasts both of Europe and of North America is rendered milder and moister by the prevailing south-westerly winds and the Equatorial currents; while, as already explained, the east coast of North America has its temperature lowered by the Arctic current which sweeps round its coasts, and the cold north-east winds which accompany it.

QUESTIONS.—What is meant by the climate of a place? By what is it chiefly determined? Mention instances of places in the same latitude having very different climates. What are the chief secondary causes to which these differences are due? Why does temperature diminish with elevation? What aspect produces the mildest climate? Mention a striking case of difference of climate depending on aspect. What is the difference between an *insular*

and a *continental* climate? Why is the former the more temperate? Contrast Moscow and Edinburgh in respect of climate. Give an instance of mountain ranges making a climate milder. What is the effect on climate of clearing forests and improving drainage? What is the difference between winds that originate on continents and those that rise on the ocean? Give examples of climate ameliorated by winds and currents.

IV.—PLANT LIFE.

Different plants are characteristic of different latitudes and different elevations above the sea-level. Humboldt has divided the Earth, from the Equator to the Pole, into eight vegetable zones, as follows:—

Zones.	Mean Temperature.	Characteristic Plants.
1. Equatorial.	77°	Palms, bananas.
2. Tropical.....	72°	Tree-ferns, figs.
3. Sub-tropical.	68°	{ Myrtles, laurels; Tea, cotton, oranges.
4. Warm-temperate.	54°	Wheat, vine.
5. Cold-temperate.....	41°	Grains, deciduous trees.
6. Sub-arctic.....	36½°	Pines; barley and oats.
7. Arctic.....	33°	Lichens; rhododendrons.
8. Polar.....	30°	Alpine plants.

As in the case of climate, the zones of vegetation vary in the same latitude with the elevation above the sea-level. For example, on the sides of the Mexican mountains there are representatives of the plants that grow in every part of the world, from the Equator to the Polar regions.

Plant life depends, for its forms and abundance, upon climate and the character of the soil. Plants grow best where they have both heat and moisture; and, accordingly, vegetation is most luxuriant in regions between the Tropics. But plants of some kind grow on every part of the globe, and have been wonderfully adapted by the Creator to the conditions in which they may best fulfil the end of their being.

QUESTIONS.—Into how many vegetable zones has Humboldt divided the Earth? Name them. Name plants characteristic of each. How do these zones exist together in the same latitude? Give an ex-

ample. Upon what does plant life depend for its form and abundance? What is the cause of the luxuriance of tropical vegetation? To what are different classes of plants wonderfully adapted?

V.—ANIMAL LIFE.

The distribution of animals is chiefly determined by climate and the supply of food. For food, they depend on the vegetable kingdom; for even those which do not live on vegetables feed on those that do. Within and near the Tropics the supplies of food are most plentiful; and there, therefore, animals are most abundant and varied, attain the greatest size, and present the brightest colours. Nothing can exceed the richness of colouring and variety of the birds and insects in these regions; while there, also, the larger mammalia,—as the elephant and the rhinoceros, the lion and the tiger,—reach their highest development.

From the Tropics to the Poles animal life gradually dwindles, both in the number of its types and in the appearance of them, as well as in the area over which they range. The range of animals is limited by the natural barriers which prevent their passage from place to place; but still more (especially in the case of birds) by the conditions to which their life is adapted. Man, also, has come to exercise great influence over the inferior animals, by rooting out those that are destructive or hostile to him, and promoting the increase of those that are useful.

Certain animals are characteristic of certain countries;—the elephant, of India and Africa; the lion, of Asia and Africa; the kangaroo, of Australia; the reindeer and the bear, of the Polar regions; the bison, of North America; and the jaguar, of South America.

The animals most useful to man are the ruminants,—ox, sheep, camel, goat, llama, deer,—and the horse tribe; and these are more widely diffused over the world than any others.

QUESTIONS.—What chiefly determines the distribution of animal life? On what do all animals ultimately depend for food? Where is that food most plentiful? What therefore is the character of animal life in the Tropics? By what is the range of animals limited? By what also, especially in the case of birds? How has man influenced the animal kingdom? Mention animals characteristic of India and Africa; of Asia and Africa; and of Australia. Of what regions are the reindeer and the bear characteristic? What is characteristic of North America? and of South America? What animals are most widely diffused? Why is this a beneficent arrangement?

VI.—MAN.

There are no organic differences among men, as there are among animals. The different races of men are only varieties of a single stock. They differ from one another in colour, in features, in habit, and in character; but in their organic structure, and in the union of the physical and moral elements of life, they are essentially one.

The peculiarities of the different races are probably due to climate, food, mode of living, and mental culture. But intercourse among nations, of which civilization is both a cause and an effect, tends to break down peculiarities; and along the boundary lines the several races shade off into one another, and thus new varieties are produced.

There are two kinds of evidence according to which mankind may be classified;—the evidence of language, or philology; and the evidence of form

and feature, or physiology. The study of languages has established the common origin of tribes far removed geographically from one another, and formerly believed to be quite distinct. But neither philology nor physiology has yet supplied sufficient information to make a final classification possible. According to the results which have already been reached, the human species is distributed into five principal varieties :—

1. **The Caucasian**, or **White Race**, characterized by an oval head, regular features, and abundant hair. It occupies all Europe (except Lapland, Finland, and part of Hungary); Western Asia; Northern Africa; and the countries in America colonized by Europeans. Philologically it is divided into the *Aryan* family (Europeans, Persians, Indians) and the *Semitic* family (Arabs, Jews, Berbers, Moors).

2. **The Mongolian**, or **Yellow Race**, with broad skull, oblique eyes, and scanty hair. It includes Chinese, Siberians, Lapps, Finns, Magyars (Hungary), Turks, and Esquimaux. Philologically this and the following races are grouped together as the *Turanian* family.

3. **The Ethiopian**, or **Black Race**, with thick lips, flat nose, and woolly hair. It includes the Negroes of Africa, Australia, Madagascar, and some of the Polynesian islands.

4. **The Malayan**, or **Brown Race**, with narrow head, and black stiff hair. It includes the natives of Malacca, and the islands of Malaysia, Polynesia, and New Zealand.

5. **The American**, or **Red Race**, consisting of the aborigines of America, with the exception of the Esquimaux.

QUESTIONS.—Wherein do the races of men differ from the species of lower animals? In what do the former differ from one another? In what are they essentially one? To what are peculiarities of race probably due? What tends to break down these peculiarities? In what two ways may mankind be classified? What has been established by philology? What are the five principal varieties of the human species? By what is the Caucasian race characterized? Whom does it include? Who belong to the Aryan and Semitic families respectively? Who are included in the Mongolian race? By what are its members characterized? Whom does the Ethiopian race include? What are its characteristic features? Where is the Malayan race found? Of whom does the Red race consist?

VII.—THE EARTH AS A PLANET.

The Earth is a planet—one of a number of stars that revolve round the Sun at different distances from that centre.

FORM OF THE EARTH.—The form of the Earth, as of the other planets, is spherical. It is not an exact sphere, however. It is slightly flattened at two opposite points, called the *Poles*; and it bulges out at the middle, or *Equator*. The shape somewhat resembles that of an orange. But the flattening or compression is comparatively slight. The Earth's diameter at the Poles is only 26 miles less than its diameter at the Equator. The compression, therefore, is only 13 miles at each Pole. To represent it, a globe 6 feet in diameter would need to be flattened less than a quarter of an inch on each side. A flattened globe of this description is called an *oblate spheroid*.

The following proofs of the spherical form of the Earth may be mentioned :—

1. When a ship comes in sight, first the topmasts and the rigging are seen, lastly the hull. If the surface of the sea were not curved, but a watery plane, we should see the whole ship at once.

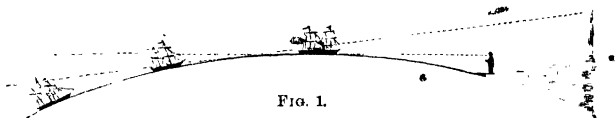


FIG. 1.

2. As a ship approaches land, the sailors see the tops of the mountains long before they see objects on the shore.

3. Ships have sailed round the Earth, and have reached the port from which they started without changing their course. In like manner, we can go round the globe, partly by land and partly by sea.

4. As we travel eastward the sun rises earlier; as we go westward it rises later. When it is twelve o'clock at Greenwich, it is little more than half-past eleven at Dublin. A cable message sent from Ireland at two o'clock on Friday afternoon reaches New York at half-past nine o'clock the same morning! This shows the Earth to be spherical from east to west.

5. As we travel north or south new stars come into view, while those behind us disappear below the horizon. This shows the Earth to be spherical from north to south. X

6. In eclipses of the moon, the shadow of the Earth is always circular, which is the invariable form of the shadows of spherical bodies only.

The **circumference** of the Earth is nearly 25,000 miles (exactly, 24,860 miles).

The **diameter** of the Earth is nearly 8000 miles (exactly, at the Poles, 7898; at the Equator, 7924).

The **distance** of the Earth from the Sun is 91,725,000 miles.

A railway train, going at the rate of 40 miles an hour, would take 25 or 26 days to go round the Earth; it would take 8 days to go through it; and if it could travel from the Earth to the Sun, the journey, without a single stoppage, would occupy 261 years.

MOTIONS OF THE EARTH.—The Earth has two motions—a **daily rotation** round itself, or on its axis, and an **annual revolution** round the Sun. On these two motions depend those changes of climate and season which form the conditions of life on the globe, both animal and vegetable. The effects of both these motions, however, are modified by the important circumstance that the Earth's axis is not perpendicular to the Sun's rays. X

DAY AND NIGHT.—The Earth rotates, or turns itself round, in the same way as a top spins, once in 23 hours, 56 minutes, 4 seconds; but as the Earth is at the same time moving on its course round the Sun, it is 3 minutes 56 seconds later each day before the same part again comes opposite to the Sun. This makes in all 24 hours, and is called a **Solar Day**. The imaginary line on which the Earth rotates is called its **Axis**. The two ends of the axis are called the **Poles**,—North and South respectively. It is this daily rotation of the Earth that causes Day and Night; but it is the slope of the Earth's axis that causes the variety in the length of the day on different parts of the Earth at the same time, and on the same part of the Earth at different seasons.

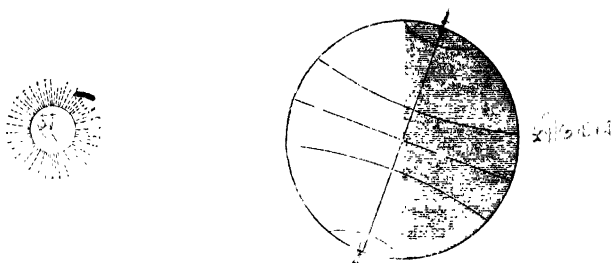


FIG. 2.—NORTHERN WINTER AND SOUTHERN SUMMER.

During one part of the Earth's course, the North Pole leans away from the Sun. Then the days are short and the nights are long in the Northern Hemisphere. The region around the North Pole is for a time thrown out of the range of the Sun's rays entirely, and during that time it is night there.

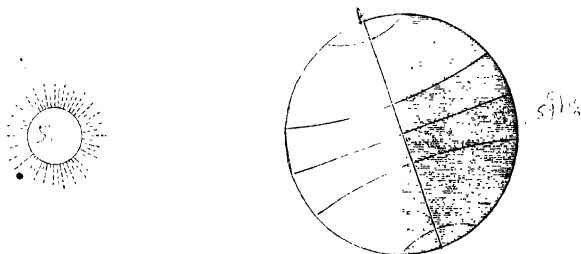


FIG. 3.—NORTHERN SUMMER AND SOUTHERN WINTER.

In the opposite part of the Earth's course, the North Pole leans towards the Sun. Then the days are long and the nights short in the Northern Hemisphere; and the region which formerly went without day now goes without night.

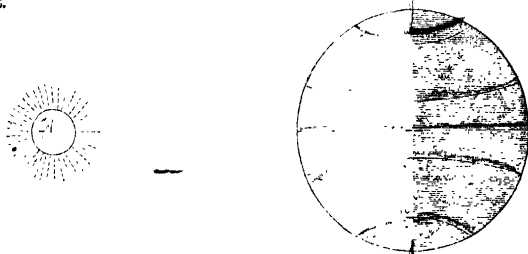


FIG. 4.—DAY AND NIGHT EQUAL.

Twice only in the year—namely, at the points midway between those two—is the Sun vertical at the Equator. Then day and night are equal all over the world.

THE SEASONS.—It is the annual revolution of the Earth, in connection with its slanting axis, that causes the change of the seasons of the year. The differences of the seasons are not dependent, as sometimes is supposed, upon the Earth's nearness to or remoteness from the Sun. In point of fact the Earth is nearest to the Sun during the winter, and farthest from the Sun during the summer, of the Northern Hemisphere.

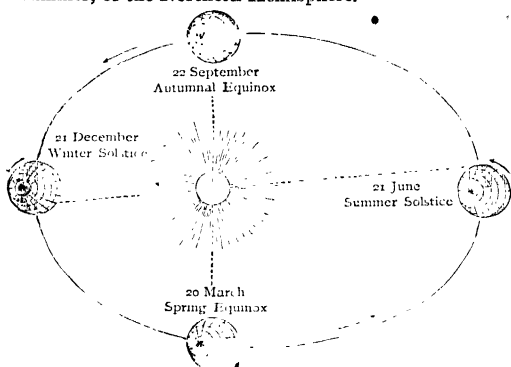


FIG. 5.—THE SEASONS.

But in summer the inclination of the Earth's axis brings the Northern Hemisphere more directly under the Sun's rays, and that for a longer time each day, than in winter. Now it is on the different aspects which the Earth presents to the Sun, making the rays of the latter at one time more nearly perpendicular, at another more oblique, that the phenomena of the seasons really depend.

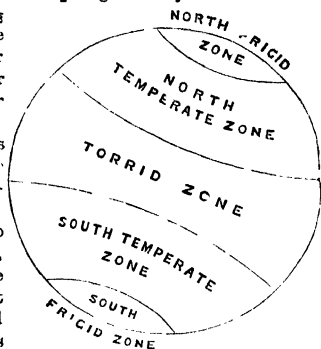
As the Earth moves round the Sun, it brings each day a new point of its surface directly under the Sun's vertical rays. These points trace out a great circle on the Earth's surface called the *Ecliptic*, the plane of which cuts the plane of the Equator obliquely (at an angle of $23\frac{1}{2}$ degrees).

The two points at which the Ecliptic cuts the Equator mark the two **Equinoxes** (equal-night points). These occur in the middle of Spring and of Autumn—about the 20th March and the 22nd September. The two intervening middle points, at which the Ecliptic is farthest from the Equator, mark the middle of Summer and of Winter—about the 21st June and 21st December, the longest and the shortest days in the northern year. When the Sun reaches these points, so little change is perceptible in his position for several days, that he is supposed to *stand still*. These points are therefore called the **Solstices** (sun-standing points), of mid-summer and mid-winter respectively. As the Sun in his apparent course, after travelling from the Equator, at these points *turns* towards the Equator again, the circles drawn round the globe parallel to the Equator, and through these points, are called the **Tropics** (from Greek *trepo*, I turn), viz., the Tropic of Cancer (northern) and the Tropic of Capricorn (southern). (See Fig. 4.)

At the Summer Solstice, as the Sun's vertical ray is $23\frac{1}{2}$ degrees above the Equator, his most oblique ray will reach $23\frac{1}{2}$ degrees beyond the North Pole on the one hand, and will fall $23\frac{1}{2}$ degrees short of the South Pole on the other. For some time before and after the summer solstice, the north polar region has no night, and the south polar region has no day. (See Fig. 3.)

Through these points two other circles are drawn round the globe, namely, the Arctic Circle in the north, and the Antarctic Circle in the south.

These four circles divide the globe into five great regions called **Zones**, or belts, distinguished by differences of climate and of animal and vegetable life. That between the Tropics is called the **Torrid** (or hot) Zone; those around the Poles are called the **Frigid** (or cold) Zones. The intervening regions are called the **Temperate Zones**. ✓



THE MOON.—When the Moon comes to exactly the same part of the sky as the Sun, it hides or *eclipses* the whole or part of the Sun's disc.* Hence it must be *nearer* us than the Sun. When the Moon comes to a star, it hides the star. Hence the Moon is nearer us than the stars. It is the nearest of the heavenly bodies. Its average distance from the Earth is 237,000 miles.

Again: when the Moon crosses the Sun, it is a black, dark circle, or part of one. Hence the Moon is not a luminous body like the Sun, but a dark one like the ground we tread on. But, like other dark bodies, it can reflect, or throw back light that falls on it. When the Moon comes to the Sun, you may see it slowly moving across the Sun from the west side to the east. Then a day or so after, in the evening, you may see it a little way east of the Sun, a thin, bright *crescent*. The bright crescent is always on the side next the Sun; but though the rest is not bright, it is all there. As soon as the Sun is fairly set, you may see the rest of the Moon as a dim gray body.

As the Moon moves away from the Sun, the crescent becomes broader; but the inner edge of the crescent, as well as the outer, always appears circular. This shows that the Moon is not a flat disc, but a globe. A week after crossing the Sun, it appears a *half-moon*; then it is a quarter of the circle of the heavens from the Sun.

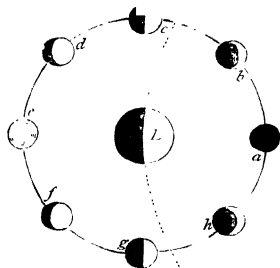
During the second week the Moon appears greater than a half-moon, or *gibbous*; and at the end of that week it is right opposite the Sun, and is a *full-moon*. It then begins to come nearer the Sun, and becomes *gibbous* again. At the end of the third week it is half-moon again, or in its *third quarter*, as it is called. For the next week it is a *crescent*, always growing

* This is called an *eclipse of the Sun*. An *eclipse of the Moon* is caused by the Sun throwing the shadow of the Earth upon the Moon. This can only occur at full-moon, and when the Sun, the Earth, and the Moon are in the same line.

less, as it moves nearer the Sun. At last it is lost sight of in the Sun's brightness, until it reappears as a new-moon again.

The time taken by the Moon in going round the Earth is called a **Month** (Old English, *Monath*; that is, *Moon's time*). It is exactly 29 days, 7 hours, 43 minutes and 11 seconds. But as the Earth is at the same time moving forward, and carrying the Moon with it, it is 2 days more; or, in all, 29 days, 12 hours, 44 minutes, before the Moon goes through all the above changes and is exactly opposite the Sun again. These changes are called the **Phases** of the Moon.

As the Moon is a dark body, only one half of it at a time can be bright—the half towards the Sun. At full-moon we are between the Moon and



PHASES OF THE MOON.

the Sun, as at *e* in the figure, where *S* is the Sun and *E* the Earth. The same side of the Moon is turned to us and to the Sun, and we see the whole of the bright side. When it is gibbous, we see most of the bright

side, and some of the dark side, as at *d* and *f*.

When it is half-moon, only half of the side that is turned towards

us is turned towards the Sun, and is bright, as at *c* and *g*. When it is a crescent, we see most of the dark side, and only a little of the bright, as at *b* and *h*. Lastly, at new-moon only the dark side is towards us, as at *a*.

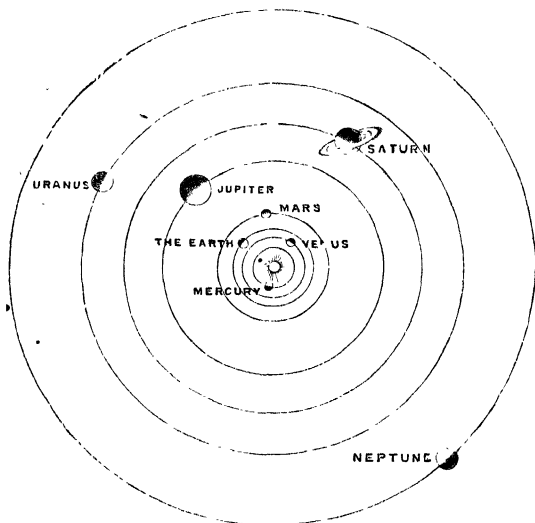
A body appears smaller the farther off it is; but the full-moon's apparent size does not vary much. Its distance from the Earth must therefore be always nearly the same; and its path, or *orbit*, must be nearly a circle. A body which appears of the Moon's size at the distance of 237,000 miles, must be 2153 miles in diameter. The Moon's bulk, therefore, is 1-49th of that of the Earth.

THE PLANETARY SYSTEM.—The heavenly body next to the Moon in brightness is the planet **Venus**. Like the Moon, if watched from night to night, it will be seen to approach or go further from the Sun, and move among the stars, but in a very different time and manner from the Moon. It never appears opposite the Sun, nor farther from him than 47° ; but there it stands for a time. It keeps by the Sun, and moves round the Sun, not round the Earth. If looked at with a large telescope when it is farthest from the Sun, it appears like a half-moon, with the bright side to the Sun. Thus, like the Earth and Moon, it is a dark body, and shines by reflecting the light of the Sun.

As it begins to approach the Sun, the half-moon shape wanes into a crescent; therefore it is coming more nearly into a line with us and the Sun. But while the crescent grows narrower, its length, or the apparent diameter of Venus, becomes much greater; and therefore Venus is then coming much nearer us. At last, it goes so near the Sun, that it is lost in his brightness. But on rare occasions, at intervals of about 113 and 8 years,

it is seen as a black spot crossing the face of the Sun. This is called a **transit of Venus**. This shows that the path, or *orbit*, of Venus round the Sun lies inside the path of the Earth round the Sun, for Venus then comes between us and the Sun. Because Venus thus moves among the stars, it is called a **planet** (from a Greek word signifying a *wanderer*); and because it moves in a path between us and the Sun, it is called an *inferior* or *inner* planet.

Another and smaller planet, called **Mercury**, also shows *phases* like the Moon, and keeps near the Sun, (much closer than Venus,) so that it is not often well seen; and it also makes transits. Hence it moves round the Sun



THE SUN AND PLANETS.

in a path inside that of Venus, and is the nearest planet to the Sun, so far as is certainly known.

Another planet is easily known by its very red light. It is called **Mars**. It never crosses between us and the Sun. Hence its path must lie outside the Earth's; it is therefore called a *superior* or *outer* planet. Another planet, **Jupiter**, is known, in the same way as Mars, to be an outer or superior planet. In the telescope Mars sometimes appears gibbous; but Jupiter shows no phases whatever. It must therefore be farther off than Mars.

There is one other planet, **Saturn**, that we can see with the naked eye, and its orbit is next outside that of Jupiter. Another planet, **Uranus**, is barely visible to the keenest eye on the clearest night. It revolves outside Saturn. The farthest out yet known is **Neptune**.

The distances of the planets from the Sun in millions of miles are :—Mercury, 35 millions ; Venus, 66 ; Earth, $92\frac{1}{2}$; Mars, 139 ; Jupiter, 476 ; Saturn, 872 ; Uranus, 1754 ; Neptune, 2746.

Between Mars and Jupiter,—at a distance of from 200 to 300 millions of miles from the Sun,—there have been discovered 226 small planets called **Planetoids** or **Asteroids**, and new ones are being discovered every year. The largest are Vesta, Juno, Ceres, and Pallas.

Other planets besides the Earth have *moons* or *satellites*. Jupiter has four, Saturn eight, Uranus six, and Neptune two. Saturn has three *rings*, consisting of immense numbers of small satellites or bodies, revolving very swiftly round him, and close together.

QUESTIONS.—To what system does the Earth belong? What is its form? How much is the Earth compressed at each pole? What is such a flattened globe called? Mention proofs of its spherical form. What does the circumference of the Earth measure? What, its diameter? Where is its diameter greatest? At what distance is it from the Sun?

What motions has the Earth? What depend on these motions? By what circumstance are the effects of these motions modified?

What causes day and night? What causes the variety in the length of the day? When are day and night equal all over the world?

What causes the change of the seasons? When is the Earth farthest from the Sun? Why is it warmest then? On what do the phenomena of the seasons really depend? What are the Equinoxes? When do they occur? What are the intervening mid-points called? Why are they called Solstices? What are the circles drawn through these points called? Why? When is there

no night at the North Pole? What fix the points through which the Arctic and Antarctic Circles are drawn? What are the regions into which these four circles divide the globe called? What zone is between the tropics? What zones are around the poles? What are the intervening called?

What *phase* does the moon show during its first, second, third, and fourth quarters respectively? Find by looking at it, or from an almanac, in what phase the moon is now. How do we know that the moon moves round the Earth? or that Venus and Mars do not? Why does the moon show phases? Which of the planets show them? and why? Which do not? and why? What is the moon's size and distance? Name the inferior or inner planets. How do we know that they are so? Name the superior or outer planets. How do we know that they are so? Which is the nearest planet to the Sun, so far as known? Which is farthest from it? Which planets are now visible in the evening? which in the morning?

